



CERTIFICATE

**Issued Date: May. 09, 2008
Report No.: 084061R-ITCEP07V04**

This is to certify that the following designated product

Product : Notebook

Trade name : MSI

Model Number : MS-1644, PR621, PR621X

Company Name : MICRO-STAR INT'L Co., LTD.

This product, which has been issued the test report listed as above in QuieTek Laboratory, is based on a single evaluation of one sample and confirmed to comply with the requirements of the following EMC standard.

EN 55022: 2006

EN 55024: 1998+A1: 2001+A2: 2003

EN 61000-3-2: 2000 + A2: 2005

IEC 61000-4-2 Edition 1.2: 2001-04

EN 61000-3-3: 1995 + A1: 2001

IEC 61000-4-3: 2002+A1: 2002

IEC 61000-4-4: 2004

IEC 61000-4-5 Edition 1.1: 2001-04

IEC 61000-4-6 Edition 2.1: 2004-11

IEC 61000-4-8 Edition 1.1: 2001-03

IEC 61000-4-11 Second Edition: 2004-03

TEST LABORATORY

Vincent Lin / Deputy Manager



Test Report

Product Name : Notebook

Model No. : MS-1644, PR621, PR621X

Applicant : MICRO-STAR INT'L Co., LTD.

Address : No. 69, Li-De St., Jung-He City, Taipei Hsien,
Taiwan, R.O.C.

Date of Receipt : 2008/03/31

Issued Date : 2008/05/09

Report No. : 084061R-ITCEP07V04

Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP or any agency of the Government.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

CE Declaration of Conformity

The following product is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive (2004/108/EC). The listed standards as below were applied:

The following Equipment:

Product : Notebook
Model Number : MS-1644, PR621, PR621X
Trade Name : Notebook

This product is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive (2004/108/EC). For the evaluation regarding EMC, the following standards were applied:

RFI Emission:

EN 55022: 2006, Class B : Product family standard
EN 61000-3-2:2000+A2: 2005, Class D : Limits for harmonic current emission
EN 61000-3-3:1995+A1: 2001 : Limitation of voltage fluctuation and flicker in low-voltage supply system

Immunity:

EN 55024:1998+A1: 2001+A2: 2003 : Product family standard

The following importer/manufacturer is responsible for this declaration:

Company Name : _____
Company Address : _____
Telephone : _____ Facsimile : _____

Person is responsible for marking this declaration:

Name (Full Name)

Position/ Title

Date

Legal Signature



Corporation
Quietek

QTK No.: 084061R-ITCEP07V04



Statement of Conformity

This certifies that the following designated product:

Product : Notebook
Model Number : MS-1644, PR621, PR621X
Trade Name : Notebook
Company Name : MICRO-STAR INT'L Co., LTD.

This product is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive (2004/108/EC). For the evaluation regarding EMC, the following standards were applied:

RFI Emission:

EN 55022: 2006, Class B : Product family standard
EN 61000-3-2:2000+A2: 2005, Class D : Limits for harmonic current emission
EN 61000-3-3:1995+A1: 2001 : Limitation of voltage fluctuation and flicker in low-voltage supply system

Immunity:

EN 55024:1998+A1: 2001+A2: 2003 : Product family standard



NEMKO



TAF
Testing Laboratory
0914

TEST LABORATORY

Deputy Manager / Vincent Lin

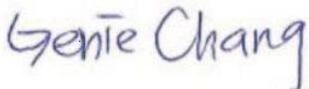
The verification is based on a single evaluation of one sample of above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. Logo.

Test Report Certification

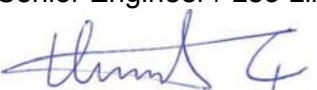
Issued Date : 2008/05/09
Report No. : 084061R-ITCEP07V04

QuieTek

Product Name : Notebook
Applicant : MICRO-STAR INT'L Co., LTD.
Address : No. 69, Li-De St., Jung-He City, Taipei Hsien, Taiwan,
R.O.C.
Manufacturer : MICRO-STAR INT'L Co., LTD.
Model No. : MS-1644, PR621, PR621X
Rated Voltage : AC 230 V / 50 Hz
EUT Voltage : AC 100-240 V, 50-60Hz
Trade Name : MSI
Applicable Standard : EN 55022: 2006 Class B
EN 55024: 1998+A1: 2001+A2: 2003
EN 61000-3-2:2000+A2: 2005
EN 61000-3-3:1995+A1: 2001
Test Result : Complied
Performed Location : Quietek Corporation (Linkou Laboratory)
No.5-22,Ruei-Shu Valley, Ruei-Ping Tsuen Lin Kuo
Shiang, Taipei, 244 Taiwan, R.O.C.
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Reviewed By : 
(Senior Engineer / Leo Lin)

Approved By : 
(Deputy Manager / Vincent Lin)

Laboratory Information

We , **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scopes:

| | | |
|---------------|---|----------------|
| Taiwan R.O.C. | : | BSMI, NCC, TAF |
| Germany | : | TUV Rheinland |
| Norway | : | Nemko, DNV |
| USA | : | FCC, NVLAP |
| Japan | : | VCCI |

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site :<http://tw.quietek.com/modules/enterprise/services.php?item=100>
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :
<http://www.quietek.com/>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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No. 5, Ruei-Shu Valley, Ruei-Ping Tsuen, Lin-Kou Shiang, Taipei, Taiwan, R.O.C.
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| 5.4. Test Procedure | 100 |
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1. General Information

1.1. EUT Description

| | |
|--------------|------------------------|
| Product Name | Notebook |
| Trade Name | MSI |
| Model No. | MS-1644, PR621, PR621X |

| Keyparts List | | |
|---------------|---------|-------------------|
| ITEM | Vendor | Model number |
| CPU | INTEL | T9600, 2.8GHz |
| | | P9500, 2.53GHz |
| | | T9400, 2.53GHz |
| | | P8600, 2.4GHz |
| | | P8400, 2.26GHz |
| LCD | SAMSUNG | LTN154AT01-001 |
| | | LTN154AT01 |
| | | LTN154X3-L01 |
| | | LTN154X3-L03 |
| | | LTN154X3-L03 |
| | | LTN154AT01-A03 |
| | CHI MEI | N154I2-L02 |
| | | N154I2-L05 |
| | | N154I2-L01 |
| | | N154I1-L02 |
| | | N154I3-L03 |
| | | N154I3-L02 |
| HDD | Fujitsu | MHW2080BH |
| | | MHW2100BH |
| | | MHW2120BH |
| | | MHW2160BH |
| | | MHY2250BH |
| | TOSHIBA | MK2546GSX |
| | | MK8037GSX |
| | | MK1237GSX |
| | WD | WD800BEVS-00RST0 |
| | | WD1200BEVS-XXUST0 |

| | | |
|-----------|----------------|------------------|
| | | WD1600BEVS |
| | | WD2500BEVS |
| Hitachi | | HTS541612J9SA00 |
| | | HTS541616J9SA00 |
| Seagate | | ST9160824AS |
| | | ST9250827AS |
| | | ST9160821AS |
| | | ST9120827AS |
| ODD(SATA) | Sony NEC (QSI) | AD-7560S |
| | HLDS | GSA-T50N |
| | PLDS | DS-8A2S |
| | TSST(Samsung) | TS-L633A |
| Memory | Transcend | TS64MSQ64V6J |
| | | TS128MSQ64V6U |
| | | JM667QSU-1G |
| | | JM800QSU-1G |
| | | TS256MSQ64V6U |
| | | TS256MSQ64V6N |
| | | JM667QSU-2G |
| | A-DATA | ADOPE1908342 |
| | Kingston | KVR800D2S5/1G |
| | | KVR667D2S5/2G |
| | Samsung | M470T2864QZ3-CF7 |
| | | M470T5663CZ3-CE6 |
| | | M470T2864DZ3-CE6 |
| Inverter | Sampo | YIVNMS0018D11-A |
| | Sampo | YIVNMS0018D11-- |
| | MITAC | DA-1A08-MS01L-A0 |
| Battery | SMP | SQU-706/5200mAh |
| | SMP | SQU-718/7800mAh |
| | SMP | BTY-M66/4400mAh |
| | SMP | BTY-M66/4400mAh |
| | STL | BTY-M66/4800mAh |
| | STL | BTY-M66/5200mAh |
| | Welltop | BTY-M67/5200MAH |

| | | |
|----------------|------------|--------------------|
| 90 W Adapter | LITEON | PA-1900-04 |
| | DELTA | ADP-90SB AB |
| | | ADP-90SB BB |
| Modem | LSI | D40 |
| | Motorola | ML3054 |
| Robson | INTEL | NVCPEHWR002G2/QJL4 |
| | | NVCPEMWR002G2/QJL7 |
| WLAN | INTEL | 512AN_HMWG |
| | | 533AN_HMWG |
| | Atheros | AR5BXB63 |
| BT | MSI | MS-6837D |
| Finger Printer | MSI (UPEK) | MS-13312 |
| Touch Pad | SYNAPTICS | TM61PDZG307 |
| Web Cam | ACME | 901-0001-13 |

Note:

The EUT is including three models, The MS-1644 for MSI and the PR621, PR621X for different marketing requirement.

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

| Pre-Test Mode | |
|-----------------|-------------------------------|
| Mode 1: | |
| Mode 2: | |
| Mode 3: | |
| Mode 4: | |
| Mode 5: | |
| Mode 6: | |
| Mode 7: | |
| Mode 8: | |
| Mode 9: | |
| Mode 10: | |
| Mode 11: | |
| Mode 12: | |
| Mode 13: | |
| Mode 14: | |
| Mode 15: | |
| Mode 16: | |
| Mode 17: | |
| Mode 18: | |
| Final Test Mode | |
| Emission | Mode 1: Mode 2: Mode 3: |
| Immunity | Mode 1: Mode 2: Mode 3: |

| ITEM | MODE 1 (LCD+CRT/1280*800) | MODE 2 (LCD+ DVI/1280*800) |
|-------------------|---------------------------|----------------------------|
| CPU | PENRYN,T9600(QAER),2.8GHz | PENRYN,T9400(QAEL),2.53GHz |
| Panel | SAMSUNG / LTN154AT01-A03 | SAMSUNG / LTN154X3-L03 |
| H.D.D | Seagate ST9160824AS | Seagate ST9250827AS |
| O.D.D. | TSST(Samsung) / TS-L633A | SONY NEC (QSI) / AD-7560S |
| Wireless LAN Card | INTEL/512 AN_HMW | AzureWave / AR5BXB63 |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/TS64MSQ64V6J | TRANSCEND/TS128MSQ64V6U |
| Web Camera | ACME/901-0001-13 | ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | Delta ADP-90SB BB (3PIN) |
| Inverter | SAMPO/YIVNMS0018D11-A | SAMPO/YIVNMS0018D11-- |
| Battery | SMP / SQU-706/5200mAh | SMP / SQU-718/7800mAh |
| Robson | INTEL/NVCPEHWR002G2/QJL4 | INTEL/NVCPEMWR002G2/QJL7 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 3 (LCD+CRT/1280*800) | MODE 4 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,P8600(QASB),2.4GHz | PENRYN,P8400(QARW),2.26GHz |
| Panel | SAMSUNG / LTN154X3-L03 | SAMSUNG / LTN154X3-L01 |
| H.D.D | Seagate ST9160821AS | Seagate ST9120827AS |
| O.D.D. | HLDS / GSA-T50N | HLDS / GSA-T50N |
| Wireless LAN Card | INTEL/533AN_HMW | INTEL/512 AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/JM667QSU-1G | TRANSCEND/JM800QSU-1G |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | LITE-ON/PA-1900-04 | Delta ADP-90SB BB (3PIN) |
| Inverter | MITAC/DA-1A08-MS01L-A0 | SAMPO/YIVNMS0018D11-A |
| Battery | SMP / BTY-M66/4400mAh | STL / BTY-M66/4800mAh |
| Robson | INTEL/NVCPEHWR002G2/892956 | INTEL/NVCPEMWR002G2/892954 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 5 (LCD+CRT/1280*800) | MODE 6 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | INTEL/P9500 2.53G | PENRYN,T9600(QAER),2.8GHz |
| Panel | SAMSUNG / LTN154AT01 | SAMSUNG / LTN154AT01-001 |
| H.D.D | WD/ WD2500BEVS | WD/ WD1600BEVS |
| O.D.D. | PLDS / DS-8A2S | TSST(Samsung) / TS-L633A |
| Wireless LAN Card | AzureWave / AR5BXB63 | INTEL/533AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/TS256MSQ64V6U | TRANSCEND/TS256MSQ64V6N |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | LITE-ON/PA-1900-04 |
| Inverter | SAMPO/YIVNMS0018D11-- | MITAC/DA-1A08-MS01L-A0 |
| Battery | STL / BTY-M66/5200mAh | Welltop /BTY-M67/5200MAH |
| Robson | INTEL/NVCPEMWR004G2/892955 | INTEL/NVCPEHWR002G2/QJL4 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 7 (LCD+CRT/1280*800) | MODE 8 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,T9400(QAEL),2.53GHz | PENRYN,P8600(QASB),2.4GHz |
| Panel | CHI MEI / N154I2-L02 | CHI MEI / N154I2-L05 |
| H.D.D | WD/ WD1200BEVS | WD/ WD800BEVS |
| O.D.D. | TSST(Samsung) / TS-L633A | SONY NEC (QSI) / AD-7560S |
| Wireless LAN Card | INTEL/512 AN_HMW | AzureWave / AR5BXB63 |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/JM667QSU-2G | A-DATA/ADOPE1908342 |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | Delta ADP-90SB BB (3PIN) |
| Inverter | SAMPO/YIVNMS0018D11-A | SAMPO/YIVNMS0018D11-- |
| Battery | SMP / SQU-706/5200mAh | SMP / SQU-718/7800mAh |
| Robson | INTEL/NVCPEMWR002G2/QJL7 | INTEL/NVCPEHWR002G2/892956 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 9 (LCD+CRT/1280*800) | MODE 10 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,P8400(QARW),2.26GHz | INTEL/P9500 2.53G |
| Panel | CHI MEI / N154I2-L01 | CHI MEI / N154I1-L02 |
| H.D.D | FUJITSU/MHW2080BH | FUJITSU/MHW2100BH |
| O.D.D. | TSST(Samsung) / TS-L633A | TSST(Samsung) / TS-L633A |
| Wireless LAN Card | INTEL/533AN_HMW | INTEL/512 AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | KINGSTON/KVR800D2S5/1G | KINGSTON/KVR667D2S5/2G |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | LITE-ON/PA-1900-04 | Delta ADP-90SB BB (3PIN) |
| Inverter | MITAC/DA-1A08-MS01L-A0 | SAMPO/YIVNMS0018D11-A |
| Battery | SMP / BTY-M66/4400mAh | STL / BTY-M66/4800mAh |
| Robson | INTEL/NVCPEMWR002G2/892954 | INTEL/NVCPEMWR004G2/892955 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 11 (LCD+CRT/1280*800) | MODE 12 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,T9600(QAER),2.8GHz | PENRYN,T9400(QAEL),2.53GHz |
| Panel | CHI MEI / N154I3-L03 | CHI MEI / N154I3-L02 |
| H.D.D | FUJITSU/MHW2120BH | FUJITSU/MHW2160BH |
| O.D.D. | SONY NEC (QSI) / AD-7560S | TSST(Samsung) / TS-L633A |
| Wireless LAN Card | AzureWave / AR5BXB63 | INTEL/533AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | SAMSUNG/M470T2864QZ3-CF7 | SAMSUNG/M470T2864DZ3-CE6 |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | LITE-ON/PA-1900-04 |
| Inverter | SAMPO/YIVNMS0018D11-- | MITAC/DA-1A08-MS01L-A0 |
| Battery | STL / BTY-M66/5200mAh | Welltop /BTY-M67/5200MAH |
| Robson | INTEL/NVCPEHWR002G2/QJL4 | INTEL/NVCPEMWR002G2/QJL7 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 13 (LCD+CRT/1280*800) | MODE 14 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,P8600(QASB),2.4GHz | PENRYN,P8400(QARW),2.26GHz |
| Panel | CHI MEI / N154I2-L02 | CHI MEI / N154I2-L05 |
| H.D.D | FUJITSU/MHY2250BH | TOSHIBA/MK2546GSX |
| O.D.D. | TSST(Samsung) / TS-L633A | SONY NEC (QSI) / AD-7560S |
| Wireless LAN Card | INTEL/512 AN_HMW | AzureWave / AR5BXB63 |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | SAMSUNG/M470T5663CZ3-CE6 | TRANSCEND/TS64MSQ64V6J |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | Delta ADP-90SB AB (2PIN) |
| Inverter | SAMPO/YIVNMS0018D11-A | SAMPO/YIVNMS0018D11-- |
| Battery | SMP/SQU-706/5200mAh | SMP/BTY-M66/4400mAh |
| Robson | INTEL/NVCPEHWR002G2/892956 | INTEL/NVCPEMWR002G2/892954 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 15 (LCD+CRT/1280*800) | MODE 16 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | INTEL/P9500 2.53G | PENRYN,T9600(QAER),2.8GHz |
| Panel | CHI MEI / N154I2-L01 | CHI MEI / N154I1-L02 |
| H.D.D | TOSHIBA/MK8037GSX | TOSHIBA/MK1237GSX |
| O.D.D. | TSST(Samsung) / TS-L633A | TSST(Samsung) / TS-L633A |
| Wireless LAN Card | INTEL/533AN_HMW | INTEL/512 AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/TS128MSQ64V6U | TRANSCEND/JM667QSU-1G |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | LITE-ON/PA-1900-04 | Delta ADP-90SB AB (2PIN) |
| Inverter | MITAC/DA-1A08-MS01L-A0 | SAMPO/YIVNMS0018D11-A |
| Battery | SMP/SQU-718/7800mAh | SMP/SQU-706/5200mAh |
| Robson | INTEL/NVCPEHWR002G2/QJL4 | INTEL/NVCPEMWR004G2/892955 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

| ITEM | MODE 17 (LCD+CRT/1280*800) | MODE 18 (LCD+CRT/1280*800) |
|-------------------|--|--|
| CPU | PENRYN,T9400(QAEL),2.53GHz | PENRYN,P8600(QASB),2.4GHz |
| Panel | CHI MEI / N154I3-L03 | CHI MEI / N154I3-L02 |
| H.D.D | HITACHI/HTS541612J9SA00 | HITACHI/HTS541616J9SA00 |
| O.D.D. | SONY NEC (QSI) / AD-7560S | SONY NEC (QSI) / AD-7560S |
| Wireless LAN Card | AzureWave / AR5BXB63 | INTEL/533AN_HMW |
| Modem Module | LSI / D40 | MOTOROLA/ML3054 |
| Memory | TRANSCEND/JM800QSU-1G | TRANSCEND/TS256MSQ64V6U |
| Web Camera | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 | CMOS CAMERA MODULE/1.3M Pixels/ACME/901-0001-13 |
| AC Adapter | Delta ADP-90SB AB (2PIN) | LITE-ON/PA-1900-04 |
| Inverter | SAMPO/YIVNMS0018D11-- | MITAC/DA-1A08-MS01L-A0 |
| Battery | SMP/SQU-706/5200mAh | SMP/BTY-M66/4400mAh |
| Robson | INTEL/NVCPEMWR002G2/QJL7 | INTEL/NVCPEHWR002G2/892956 |
| Bluetooth | MSI/MS-6837D | MSI/MS-6837D |
| Port Replicator | -- | MSI/MS-1P02 |

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Mode 1

| Product | Manufacturer | Model No. | Serial No. | Power Cord |
|-------------------------|---------------|------------|------------------|--------------------------------|
| 1 Monitor | SONY | CPD-G500 | 2706658 | Non-Shielded, 1.8m |
| 2 Microphone & Earphone | PCHOME | N/A | N/A | N/A |
| 3 USB Mouse | Logitech | M-BE58 | HCA30103100 | N/A |
| 4 IPod nano | Apple | A1199 | YM708A72VQ5 | N/A |
| 5 SATA HDD | Onnto | ST-M10 | 500127-E33-0007 | Non-Shielded, 1.8m With Core*1 |
| 6 COMBO HDD | TeraSys | F12-UF | A0100215-64b0014 | N/A |
| 7 Notebook PC | DELL | PPT | N/A | Non-Shielded, 1.8m |
| 8 Exchange Network | Sun Moon Star | PX-4 | 95170087 | Non-Shielded, 1.8m |
| 9 Printer | EPSON | StyLus C63 | FAPY094331 | Non-Shielded, 1.8m |

Mode 2

| Product | Manufacturer | Model No. | Serial No. | Power Cord |
|-------------------------|---------------|------------|--------------------------|--------------------------------|
| 1 Monitor | Dell | 2407WFPb | CN-0FC255-46633-638-1MDS | Non-Shielded, 1.8m |
| 2 Modem | ACEEX | DM-1414 | 0102027554 | N/A |
| 3 Microphone & Earphone | PCHOME | N/A | N/A | N/A |
| 4 Earphone | AIWA | N/A | N/A | N/A |
| 5 Keyboard | COMPAQ | KB-0133 | B55940MGAPK00K | N/A |
| 6 Mouse | HP | M-S69 | N/A | N/A |
| 7 USB Mouse | Logitech | M-BE58 | HCA30103100 | Non-Shielded, 1.8m |
| 8 IPod nano | Apple | A1199 | YM708A72VQ5 | N/A |
| 9 IPod nano | Apple | A1199 | YM706LSCVQ5 | N/A |
| 10 IPod nano | Apple | A1199 | YM7088TVVQ5 | N/A |
| 11 SATA HDD | Onnto | ST-M10 | 500127-E33-0007 | Non-Shielded, 1.8m With Core*1 |
| 12 COMBO HDD | TeraSys | F12-UF | A0100215-64b0014 | Non-Shielded 1.8m |
| 13 IPod nano | Apple | A1199 | 5U7047U8VQ5 | N/A |
| 14 IPod nano | Apple | A1199 | YM709RBUVQ5 | N/A |
| 15 IPod nano | Apple | A1199 | SU7047UXVQ5 | N/A |
| 16 Printer | EPSON | StyLus C63 | FAPY094331 | Non-Shielded, 1.8m |
| 17 Exchange Network | Sun Moon Star | PX-4 | 95170087 | Non-Shielded, 1.8m |
| 18 Notebook PC | DELL | PPT | N/A | Non-Shielded, 1.8m |

Mode 3

| Product | Manufacturer | Model No. | Serial No. | Power Cord |
|-------------------------|---------------|------------|------------------|--------------------------------|
| 1 Monitor | SONY | CPD-G500 | 2706658 | Non-Shielded, 1.8m |
| 2 Microphone & Earphone | PCHOME | N/A | N/A | N/A |
| 3 USB Mouse | Logitech | M-BE58 | HCA30103100 | N/A |
| 4 IPod nano | Apple | A1199 | YM708A72VQ5 | N/A |
| 5 SATA HDD | Onnto | ST-M10 | 500127-E33-0007 | Non-Shielded, 1.8m With Core*1 |
| 6 COMBO HDD | TeraSys | F12-UF | A0100215-64b0014 | N/A |
| 7 Notebook PC | DELL | PPT | N/A | Non-Shielded, 1.8m |
| 8 Exchange Network | Sun Moon Star | PX-4 | 95170087 | Non-Shielded, 1.8m |
| 9 Printer | EPSON | StyLus C63 | FAPY094331 | Non-Shielded, 1.8m |

1.4. Configuration of Tested System

| Connection Diagram Mode 1: | |
|------------------------------|--|
| | |
| Signal Cable Type | Signal cable Description |
| A | D-SUB Cable Shielded, 1.8m, with two ferrite cores bonded |
| B | Earphone & Microphone Cable Non-Shielded, 1.6m |
| C | USB Mouse Cable Shielded, 1.8m |
| D | IPod Cable Shielded, 1.2m |
| E | SATA Cable Shielded, 1.2m |
| F | 1394 Cable Shielded, 1.5m |
| G | Printer Cable Shielded, 1.2m |
| H | LAN Cable Non-Shielded, 3.0m |
| I | Telecom Cable Non-Shielded, 3.0m two PCS |

| Connection Diagram Mode 2: | |
|------------------------------|--|
| Signal Cable Type | Signal cable Description |
| A | RS-232 Cable Shielded, 1.5m |
| B | D-SUB Cable Shielded, 1.8m, with two ferrite cores bonded |
| C | DVI Cable Shielded, 1.8m, with two ferrite cores bonded |
| D | Earphone Cable Non-Shielded, 1.8m |
| E | Earphone & Microphone Cable Non-Shielded, 1.8m |
| F | PS/2 Keyboard Cable Shielded, 1.8m |
| G | PS/2 Mouse Cable Shielded, 1.8m |
| H | USB Mouse Cable Shielded, 1.8m |
| I | IPod Cable Shielded, 1.2m six PCS |
| J | SATA Cable Shielded, 1.2m |
| K | 1394 Cable Shielded, 1.5m |
| L | Printer Cable Shielded, 1.2m |
| M | LAN Cable Non-Shielded, 3.0m |
| N | Telecom Cable Non-Shielded, 3.0m two PCS |

| Connection Diagram Mode 3: | |
|-------------------------------|---|
| Signal Cable Type | Signal cable Description |
| A D-SUB Cable | Shielded, 1.8m, with two ferrite cores bonded |
| B Earphone & Microphone Cable | Non-Shielded, 1.6m |
| C USB Mouse Cable | Shielded, 1.8m |
| D IPod Cable | Shielded, 1.2m |
| E SATA Cable | Shielded, 1.2m |
| F 1394 Cable | Shielded, 1.5m |
| G Printer Cable | Shielded, 1.2m |
| H LAN Cable | Non-Shielded, 3.0m |
| I Telecom Cable | Non-Shielded, 3.0m two PCS |

The diagram illustrates the connection setup for Mode 3. A central unit labeled 'EUT' is connected to several peripheral components.
 - A connection labeled 'A' goes from the EUT to a 'Monitor (1)'.
 - A connection labeled 'B' goes from the EUT to a 'Microphone & Earphone (2)'.
 - A connection labeled 'C' goes from the EUT to a 'USB Mouse (3)'.
 - A connection labeled 'D' goes from the EUT to an 'Ipod (4)'.
 - A connection labeled 'E' goes from the EUT to a 'SATA HDD (5)'.
 - A connection labeled 'F' goes from the EUT to a '1394 HDD (6)'.
 - A connection labeled 'G' goes from the EUT to a 'Printer (9)'.
 - A connection labeled 'H' goes from the EUT to an 'Exchange Network (8)'.
 - A connection labeled 'I' goes from the 'Exchange Network (8)' to a 'Notebook (7)'.

1.5. EUT Exercise Software

| | |
|---|--|
| 1 | Setup the EUT and peripheral as shown on Figure |
| 2 | Connect the power to EUT and peripherals, then turn on the power of all equipments. |
| 3 | Waiting for EUT to enter Window Vista Operating System, and adjust the display resolution to the test mode. |
| 4 | Connect LAN and Telecom to Notebook PC for transmitting data. |
| 5 | Activate Wireless interface and Bluetooth function, and perform the wireless data communication with the other Notebook (write/delete action). |
| 6 | Connect 1394 to Slim Combo for transmitting data. |
| 7 | Run Windows Media Player program and play a disk with color Bar pattern |
| 8 | Run "H" pattern. |
| 9 | Begin to test and repeat the above procedure (4)~(8) |

2. Technical Test

2.1. Summary of Test Result

- No deviations from the test standards
 Deviations from the test standards as below description:

| Emission | | | |
|---------------------------------|----------------------------|----------------|-----------|
| Performed Item | Normative References | Test Performed | Deviation |
| Conducted Emission | EN 55022: 2006 Class B | Yes | No |
| Impedance Stabilization Network | EN 55022: 2006 Class B | Yes | No |
| Radiated Emission | EN 55022: 2006 Class B | Yes | No |
| Power Harmonics | EN 61000-3-2:2000+A2: 2005 | Yes | No |
| Voltage Fluctuation and Flicker | EN 61000-3-3:1995+A1: 2001 | Yes | No |

| Immunity | | | |
|---------------------------------|-------------------------------------|----------------|-----------|
| Performed Item | Normative References | Test Performed | Deviation |
| Electrostatic Discharge | IEC 61000-4-2 Edition 1.2: 2001-04 | Yes | No |
| Radiated susceptibility | IEC 61000-4-3:2002+A1: 2002 | Yes | No |
| Electrical fast transient/burst | IEC 61000-4-4:2004 | Yes | No |
| Surge | IEC 61000-4-5 Edition 1.1: 2001-04 | Yes | No |
| Conducted susceptibility | IEC 61000-4-6 Edition 2.1: 2004-11 | Yes | No |
| Power frequency magnetic field | IEC 61000-4-8 Edition 1.1: 2001-03 | Yes | No |
| Voltage dips and interruption | IEC 61000-4-11 2nd Edition: 2004-03 | Yes | No |

2.2. List of Test Equipment

Conducted Emission / SR1

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|-------------------|--------------|----------|--------------|------------|
| EMI Test Receiver | R&S | ESCS 30 | 836858/022 | 2008/02/12 |
| LISN | R&S | ENV4200 | 833209/007 | 2007/07/13 |
| LISN | R&S | ESH3-Z5 | 836679/020 | 2008/01/26 |
| Pulse Limiter | R&S | ESH3-Z2 | 357.88.10.52 | 2007/09/04 |

Impedance Stabilization Network / SR1

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|---------------------------------|--------------|--------------------|--------------|------------|
| Schaffner NSG 2070 RF-Generator | N/A | N/A | N/A | N/A |
| Capacitive Voltage Probe | Schaffner | CVP2200A | 18331 | 2007/11/10 |
| EMI Test Receiver | R&S | ESCS 30 | 836858/022 | 2008/02/12 |
| LISN | R&S | ESH3-Z5 | 836679/020 | 2008/01/26 |
| LISN | R&S | ENV4200 | 833209/007 | 2007/07/13 |
| Impedance Stabilization Network | Schaffner | ISN T400 | 19099 | 2007/07/15 |
| Pulse Limiter | R&S | ESH3-Z2 | 357.88.10.52 | 2007/09/04 |
| RF Current Probe | FCC | F-65 10KHz~1GHz | 198 | 2007/11/10 |

Radiated Emission / Site3

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|------------------------|-----------------|-------------------------|------------|------------|
| Bilog Antenna | Schaffner Chase | CBL6112B | 2704 | 2007/08/09 |
| Broadband Horn Antenna | Schwarzbeck | BBHA9170 | 208 | 2007/07/25 |
| EMI Test Receiver | R&S | ESCS 30 | 838251/001 | 2007/05/11 |
| EMI Test Receiver | R&S | ESI26 | 838786/004 | 2007/06/19 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 305 | 2007/08/10 |
| Pre-Amplifier | QTK | N/A | N/A | 2008/01/03 |
| Pre-Amplifier | MITEQ | AMF-4D-18040 0-45-6P | 925974 | 2008/01/03 |
| Spectrum Analyzer | Advantest | R3162 | 101102468 | 2007/10/24 |

Power Harmonics / SR3

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|-------------------------------|--------------|------------|-----------|------------|
| AC Power Source(Harmonic) | Schaffner | NSG 1007 | HK54148 | 2007/06/29 |
| IEC1000-4-X Analyzer(Flicker) | Schaffner | CCN 1000-1 | X7 1887 | 2007/06/29 |

Voltage Fluctuation and Flicker / SR3

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|-------------------------------|--------------|------------|-----------|------------|
| AC Power Source(Harmonic) | Schaffner | NSG 1007 | HK54148 | 2007/06/29 |
| IEC1000-4-X Analyzer(Flicker) | Schaffner | CCN 1000-1 | X7 1887 | 2007/06/29 |

Electrostatic Discharge / SR6

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--------------------------------|--------------|----------|-----------|------------|
| ESD Simulator System | KeyTek | MZ-15/EC | 0112372 | 2007/08/02 |
| Horizontal Coupling Plane(HCP) | QuieTek | HCP AL50 | N/A | N/A |
| Vertical Coupling Plane(VCP) | QuieTek | VCP AL50 | N/A | N/A |

Radiated susceptibility / CB5

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--------------------------|-----------------|--------------------|------------|------------|
| AF-BOX | R&S | AF-BOX ACCUST | 100007 | N/A |
| Audio Analyzer | R&S | UPL 16 | 100137 | 2008/03/16 |
| Bilog Antenna | Schaffner Chase | CBL6112B | 2450 | 2008/01/03 |
| Broad-Band Antenna | Schwarzbeck | VULB 9166 | 1085 | 2007/08/02 |
| CMU200 UNIV.RADIOCOMM | R&S | CMU200 | 104846 | 2008/03/16 |
| Directional Coupler | A&R | DC 6180 | 22735 | N/A |
| Dual Microphone Supply | B&K | 5935 | 2426784 | 2007/08/04 |
| Mouth Simulator | B&K | 4227 | 2439692 | 2007/08/04 |
| Power Amplifier | A&R | 30S1G3 | 309453 | N/A |
| Power Amplifier | A&R | 100W10000M7 | A285000010 | N/A |
| Power Meter | R&S | NRVD(P.M) | 100219 | 2008/04/21 |
| Pre-Amplifier | A&R | 150A220 | 23067 | N/A |
| Probe Microphone | B&K | 4182 | 2278070 | 2007/08/04 |
| Signal Generator | R&S | SMY02(9K-208 0) | 825454/028 | 2007/09/22 |

Electrical fast transient/burst / SR6

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--|--------------|----------|-----------|-----------|
| Schaffner NSG 2050 System Mainframe | N/A | N/A | N/A | N/A |

Surge / SR6

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--|--------------|----------|-----------|-----------|
| Schaffner NSG 2050 System Mainframe | N/A | N/A | N/A | N/A |

Conducted susceptibility / SR6

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|------------------------------------|--------------|----------|-----------|------------|
| Schaffner NSG 2070 RF-Generator | Schaffner | N/A | N/A | 2008/04/21 |

Power frequency magnetic field / SR3

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--|--------------------|----------|--------------|------------|
| Induction Coil Interface | Schaffner | INA 2141 | 6002 | N/A |
| Magnetic Loop Coil | Schaffner | INA 702 | 199749-020IN | N/A |
| Magnetic/Electric field measuring system | Lackmann Phymetric | MV3 | N/A | N/A |
| Triaxial ELF Magnetic Field Meter | F.B.BELL | 4090 | 9852 | 2007/05/30 |

Voltage dips and interruption / SR6

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|--|--------------|----------|-----------|-----------|
| Schaffner NSG 2050 System Mainframe | N/A | N/A | N/A | N/A |

Schaffner NSG 2070 RF-Generator

| Instrument | Manufacturer | Type No. | Serial No | Cal. Date |
|-----------------------------|--------------|-----------|-----------|------------|
| CDN | Schaffner | CAL U100A | 20405 | 2008/03/27 |
| CDN | Schaffner | TRA U150 | 20454 | 2008/03/27 |
| CDN M016S | Schaffner | CAL U100A | 20410 | 2008/03/27 |
| CDN M016S | Schaffner | TRA U150 | 21167 | 2008/03/27 |
| CDN T002 | Schaffner | CAL U100 | 20491 | 2008/03/27 |
| CDN T002 | Schaffner | TRA U150 | 21169 | 2008/03/27 |
| CDN T400 | Schaffner | CAL U100 | 17735 | 2008/03/27 |
| CDN T400 | Schaffner | TRA U150 | 21166 | 2008/03/27 |
| Coupling Decoupling Network | Schaffner | CDN M016S | 20822 | 2008/03/27 |
| Coupling Decoupling Network | Schaffner | CDN M016S | 20823 | 2008/03/27 |
| Coupling Decoupling Network | Schaffner | CDN T002 | 19018 | 2008/03/27 |
| Coupling Decoupling Network | Schaffner | CDN T400 | 21226 | 2008/03/27 |
| EM-CLAMP | Schaffner | KEMZ 801 | 21024 | 2008/04/21 |

2.3. Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as \pm 2.26 dB.

Impedance Stabilization Network

The measurement uncertainty is evaluated as \pm 2.26 dB.

Radiated Emission

The measurement uncertainty is evaluated as \pm 3.19 dB.

Electrostatic Discharge

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in ESD testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant ESD standards. The immunity test signal from the ESD system meet the required specifications in IEC 61000-4-2 through the calibration report with the calibrated uncertainty for the waveform of voltage and timing as being 1.63 % and 2.76%.

Radiated susceptibility

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in RS testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant RS standards. The immunity test signal from the RS system meet the required specifications in IEC 61000-4-3 through the calibration for the uniform field strength and monitoring for the test level with the uncertainty evaluation report for the electrical filed strength as being 2.72 dB.

Electrical fast transient/burst

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in EFT/Burst testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant EFT/Burst standards. The immunity test signal from the EFT/Burst system meet the required specifications in IEC 61000-4-4 through the calibration report with the calibrated uncertainty for the waveform of voltage, frequency and timing as being 1.63 %, 2.8 10-10 and 2.76%.

Surge

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in Surge testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant Surge standards. The immunity test signal from the Surge system meet the required specifications in IEC 61000-4-5 through the calibration report with the calibrated uncertainty for the waveform of voltage and timing as being 1.63 % and 2.76%.

Conducted susceptibility

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in CS testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant CS standards. The immunity test signal from the CS system meet the required specifications in IEC 61000-4-6 through the calibration for unmodulated signal and monitoring for the test level with the uncertainty evaluation report for the injected modulated signal level through CDN and EM Clamp/Direct Injection as being 3.72 dB and 2.78 dB.

Power frequency magnetic field

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in PFM testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant PFM standards. The immunity test signal from the PFM system meet the required specifications in IEC 61000-4-8 through the calibration report with the calibrated uncertainty for the Gauss Meter to verify the output level of magnetic field strength as being 2 %.

Voltage dips and interruption

As what is concluded in the document from Note2 of clause 5.4.6.2 of ISO/IEC 17025: 1999[2], the requirements for measurement uncertainty in DIP testing are deemed to have been satisfied, and the testing is reported in accordance with the relevant DIP standards. The immunity test signal from the DIP system meet the required specifications in IEC 61000-4-11 through the calibration report with the calibrated uncertainty for the waveform of voltage and timing as being 1.63 % and 2.76%.

2.4. Test Environment

| Performed Item | Items | Required | Actual |
|---------------------------------|----------------------------|----------|----------|
| Conducted Emission | Temperature (°C) | 15-35 | 25 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Impedance Stabilization Network | Temperature (°C) | 15-35 | 25 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Radiated Emission | Temperature (°C) | 15-35 | 25 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Electrostatic Discharge | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 30-60 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Radiated susceptibility | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Electrical fast transient/burst | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Surge | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 10-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Conducted susceptibility | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |

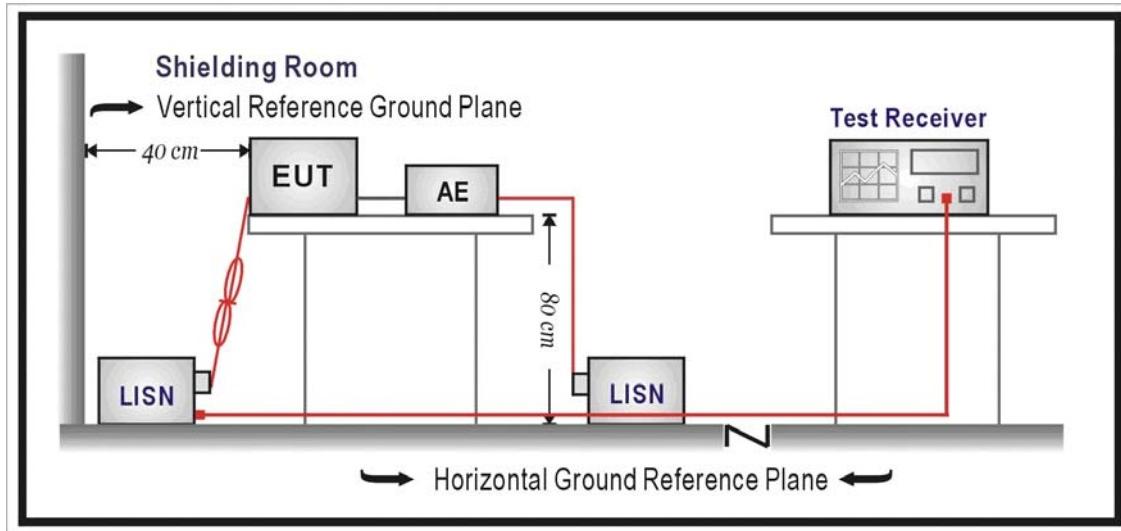
| | | | |
|--------------------------------|----------------------------|----------|----------|
| Power frequency magnetic field | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |
| Voltage dips and interruption | Temperature (°C) | 15-35 | 21.1 |
| | Humidity (%RH) | 25-75 | 50 |
| | Barometric pressure (mbar) | 860-1060 | 950-1000 |

3. Conducted Emission (Main Terminals)

3.1. Test Specification

According to EMC Standard : EN 55022

3.2. Test Setup



3.3. Limit

| Limits | | |
|-----------------|-----------|-----------|
| Frequency (MHz) | QP (dBuV) | AV (dBuV) |
| 0.15 - 0.50 | 66 - 56 | 56 – 46 |
| 0.50-5.0 | 56 | 46 |
| 5.0 - 30 | 60 | 50 |

Remarks: In the above table, the tighter limit applies at the band edges.

3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

(Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

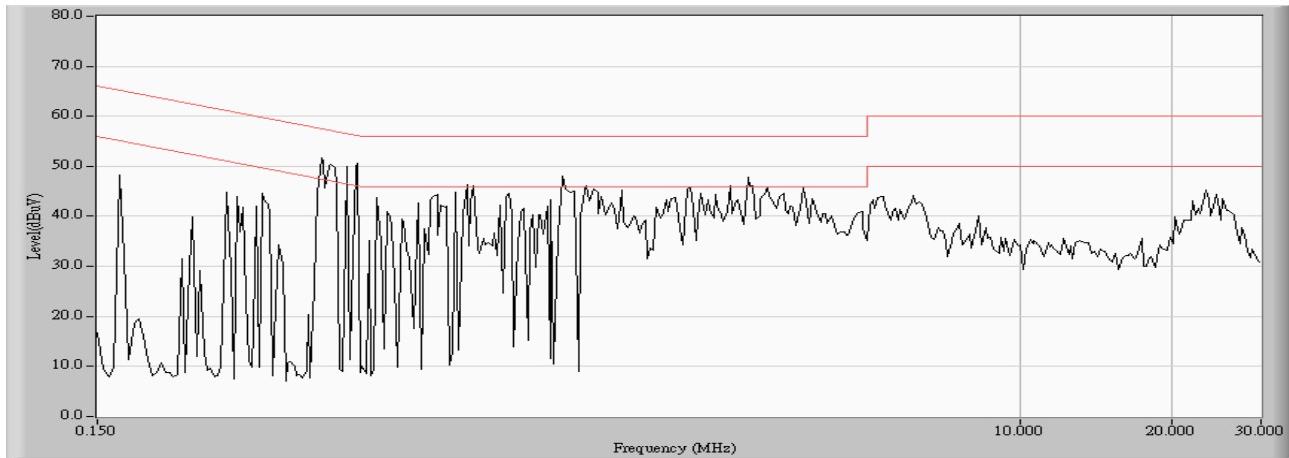
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Deviation from Test Standard

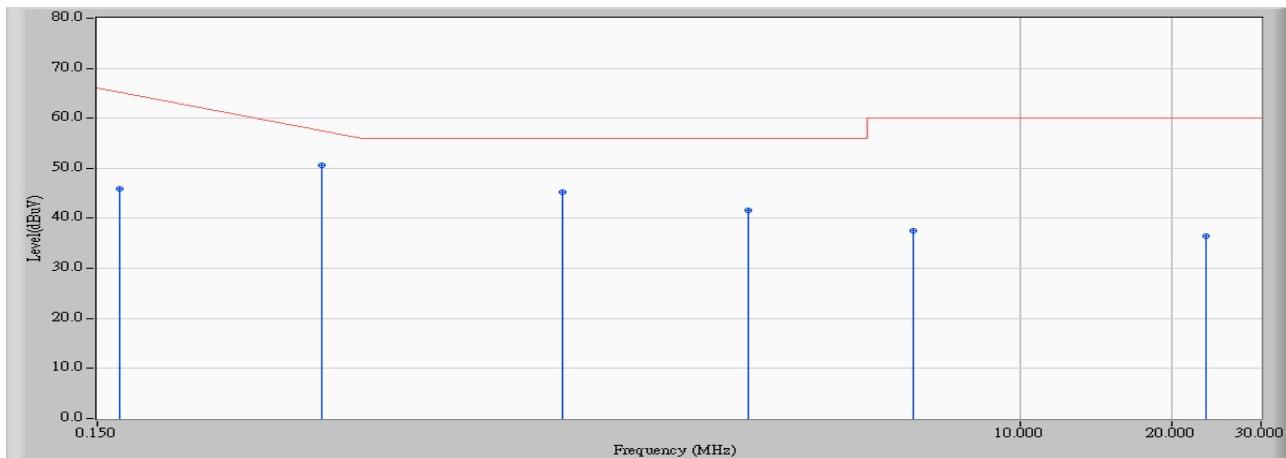
No deviation.

3.6. Test Result

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:38 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:39 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1 |

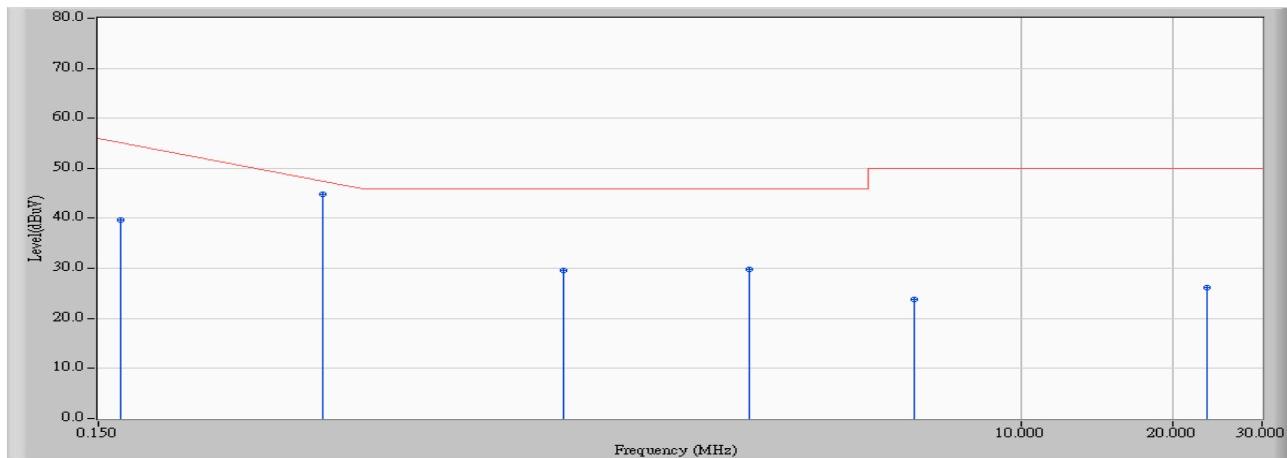


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.166 | 0.556 | 45.420 | 45.976 | -19.567 | 65.543 | QUASIPEAK |
| 2 * | 0.416 | 0.300 | 50.250 | 50.550 | -7.850 | 58.400 | QUASIPEAK |
| 3 | 1.244 | 0.320 | 44.860 | 45.180 | -10.820 | 56.000 | QUASIPEAK |
| 4 | 2.912 | 0.370 | 41.340 | 41.710 | -14.290 | 56.000 | QUASIPEAK |
| 5 | 6.177 | 0.470 | 37.130 | 37.600 | -22.400 | 60.000 | QUASIPEAK |
| 6 | 23.322 | 1.170 | 35.300 | 36.470 | -23.530 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:39 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1 |

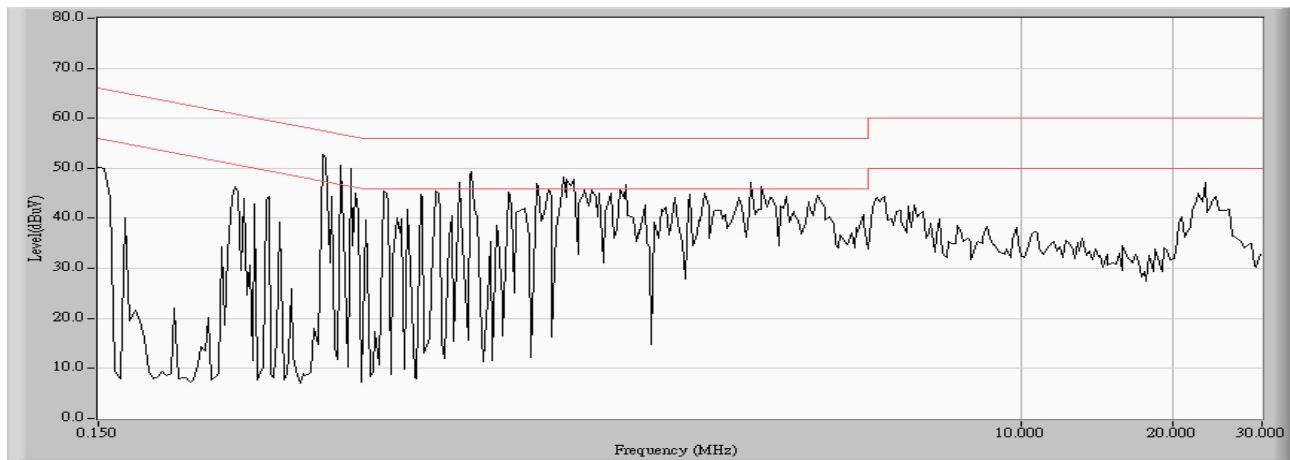


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.166 | 0.556 | 39.060 | 39.616 | -15.927 | 55.543 | AVERAGE |
| 2 * | 0.416 | 0.300 | 44.440 | 44.740 | -3.660 | 48.400 | AVERAGE |
| 3 | 1.244 | 0.320 | 29.220 | 29.540 | -16.460 | 46.000 | AVERAGE |
| 4 | 2.912 | 0.370 | 29.490 | 29.860 | -16.140 | 46.000 | AVERAGE |
| 5 | 6.177 | 0.470 | 23.250 | 23.720 | -26.280 | 50.000 | AVERAGE |
| 6 | 23.322 | 1.170 | 24.900 | 26.070 | -23.930 | 50.000 | AVERAGE |

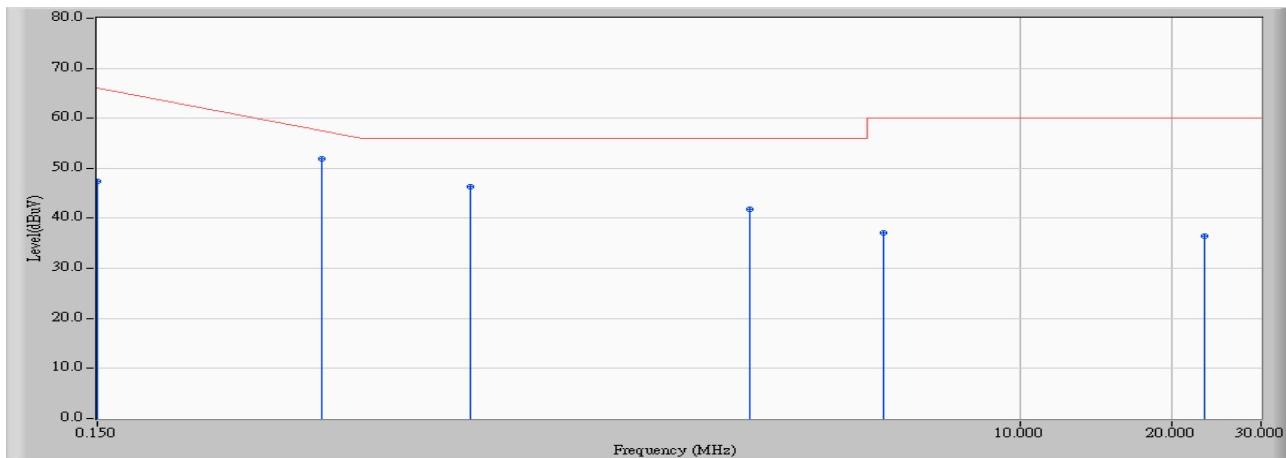
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:40 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 1 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:40 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 1 |

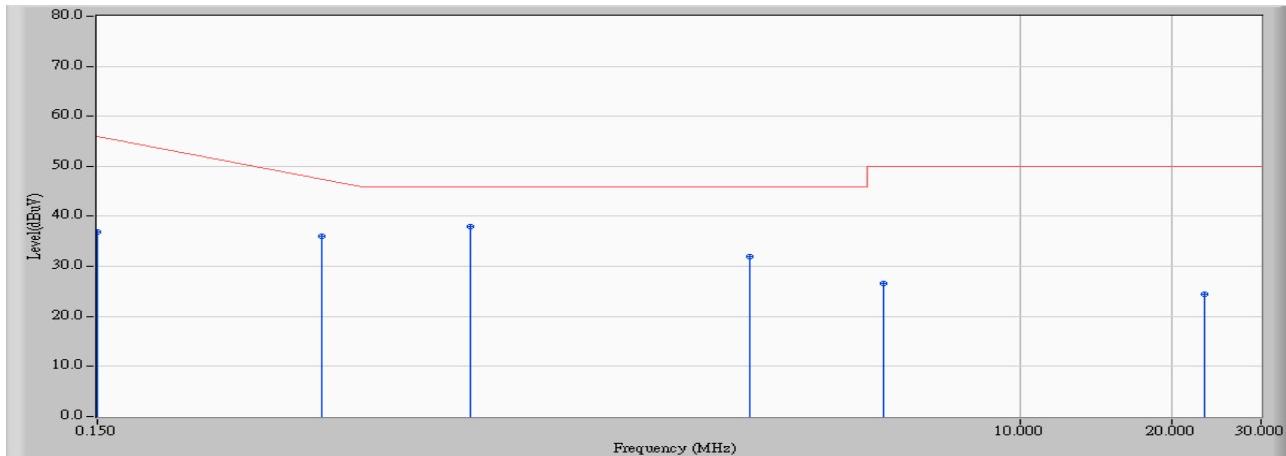


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.150 | 0.300 | 47.070 | 47.370 | -18.630 | 66.000 | QUASIPEAK |
| 2 * | 0.416 | 0.310 | 51.490 | 51.800 | -6.600 | 58.400 | QUASIPEAK |
| 3 | 0.818 | 0.320 | 46.030 | 46.350 | -9.650 | 56.000 | QUASIPEAK |
| 4 | 2.920 | 0.370 | 41.400 | 41.770 | -14.230 | 56.000 | QUASIPEAK |
| 5 | 5.380 | 0.420 | 36.680 | 37.100 | -22.900 | 60.000 | QUASIPEAK |
| 6 | 23.275 | 1.030 | 35.500 | 36.530 | -23.470 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:40 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 1 |

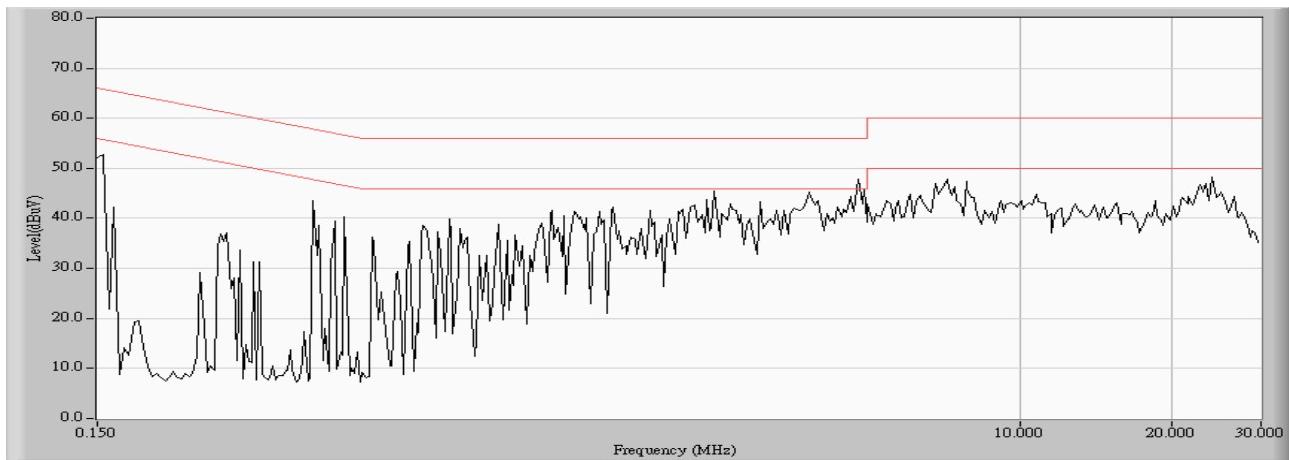


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.150 | 0.300 | 36.510 | 36.810 | -19.190 | 56.000 | AVERAGE |
| 2 | 0.416 | 0.310 | 35.780 | 36.090 | -12.310 | 48.400 | AVERAGE |
| 3 | * 0.818 | 0.320 | 37.620 | 37.940 | -8.060 | 46.000 | AVERAGE |
| 4 | 2.920 | 0.370 | 31.590 | 31.960 | -14.040 | 46.000 | AVERAGE |
| 5 | 5.380 | 0.420 | 26.200 | 26.620 | -23.380 | 50.000 | AVERAGE |
| 6 | 23.275 | 1.030 | 23.410 | 24.440 | -25.560 | 50.000 | AVERAGE |

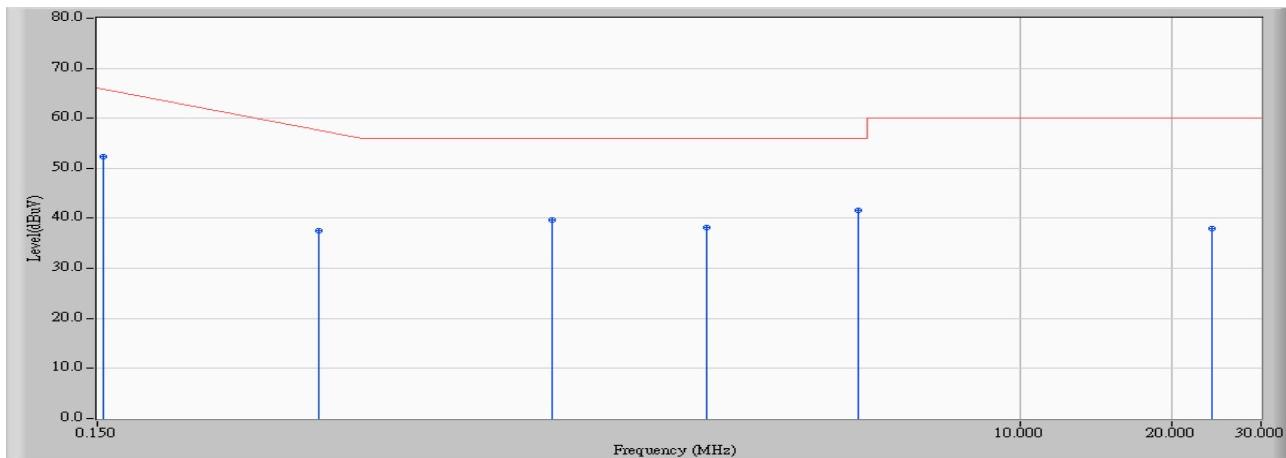
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:44 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:45 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2 |

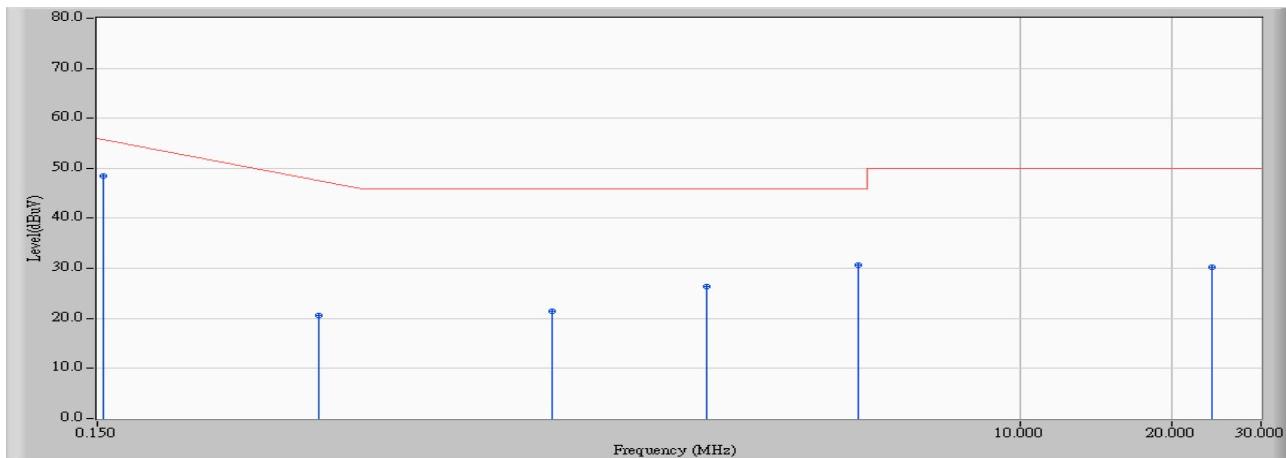


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.154 | 0.364 | 51.920 | 52.284 | -13.602 | 65.886 | QUASIPEAK |
| 2 | | 0.412 | 0.300 | 37.210 | 37.510 | -21.004 | 58.514 | QUASIPEAK |
| 3 | | 1.193 | 0.320 | 39.380 | 39.700 | -16.300 | 56.000 | QUASIPEAK |
| 4 | | 2.412 | 0.350 | 37.830 | 38.180 | -17.820 | 56.000 | QUASIPEAK |
| 5 | | 4.791 | 0.425 | 41.140 | 41.565 | -14.435 | 56.000 | QUASIPEAK |
| 6 | | 23.962 | 1.180 | 36.700 | 37.880 | -22.120 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:45 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2 |

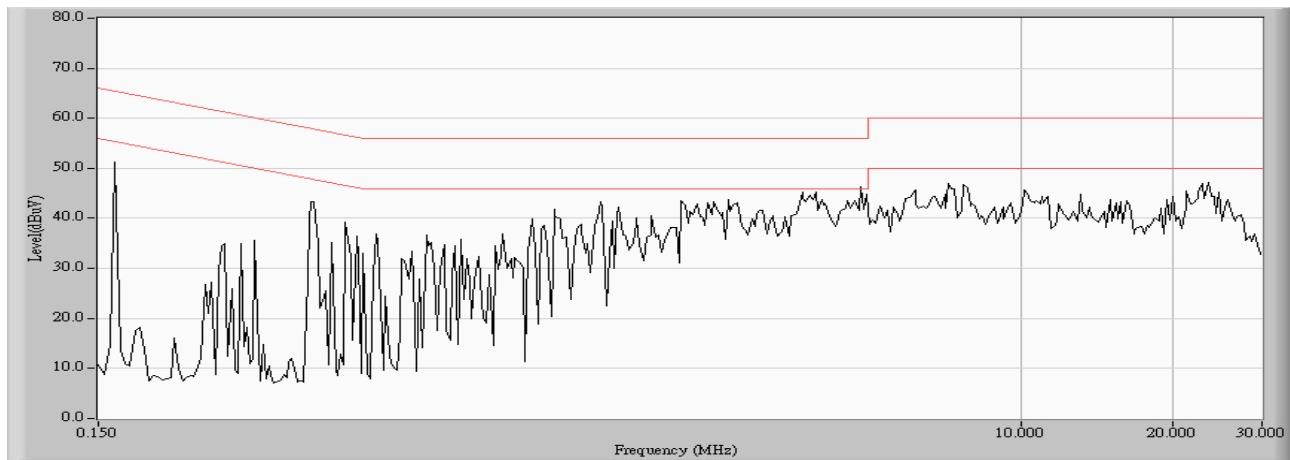


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.154 | 0.364 | 48.130 | 48.494 | -7.392 | 55.886 | AVERAGE |
| 2 | | 0.412 | 0.300 | 20.230 | 20.530 | -27.984 | 48.514 | AVERAGE |
| 3 | | 1.193 | 0.320 | 21.140 | 21.460 | -24.540 | 46.000 | AVERAGE |
| 4 | | 2.412 | 0.350 | 26.100 | 26.450 | -19.550 | 46.000 | AVERAGE |
| 5 | | 4.791 | 0.425 | 30.200 | 30.625 | -15.375 | 46.000 | AVERAGE |
| 6 | | 23.962 | 1.180 | 29.100 | 30.280 | -19.720 | 50.000 | AVERAGE |

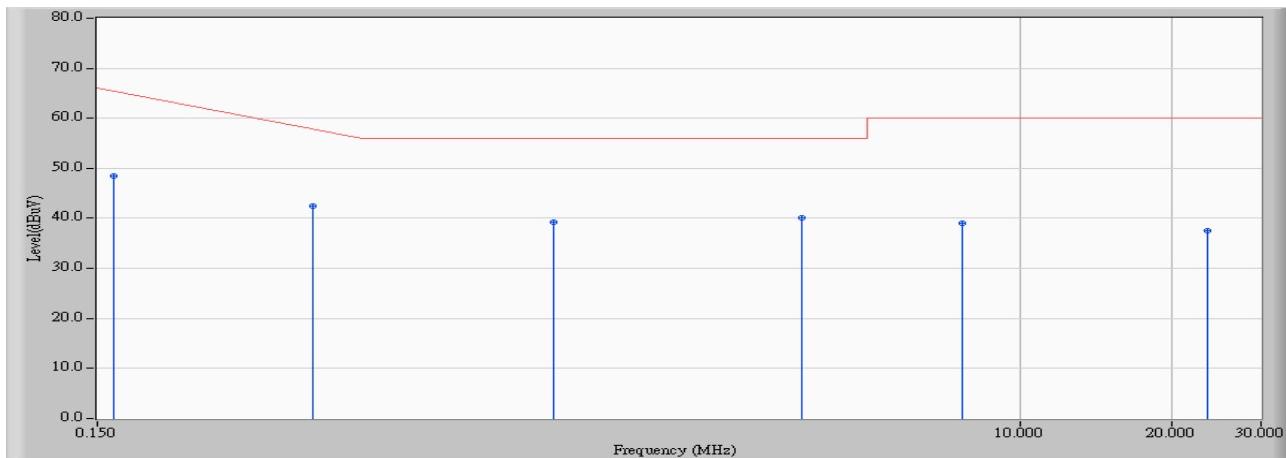
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:45 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 2 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:46 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 2 |

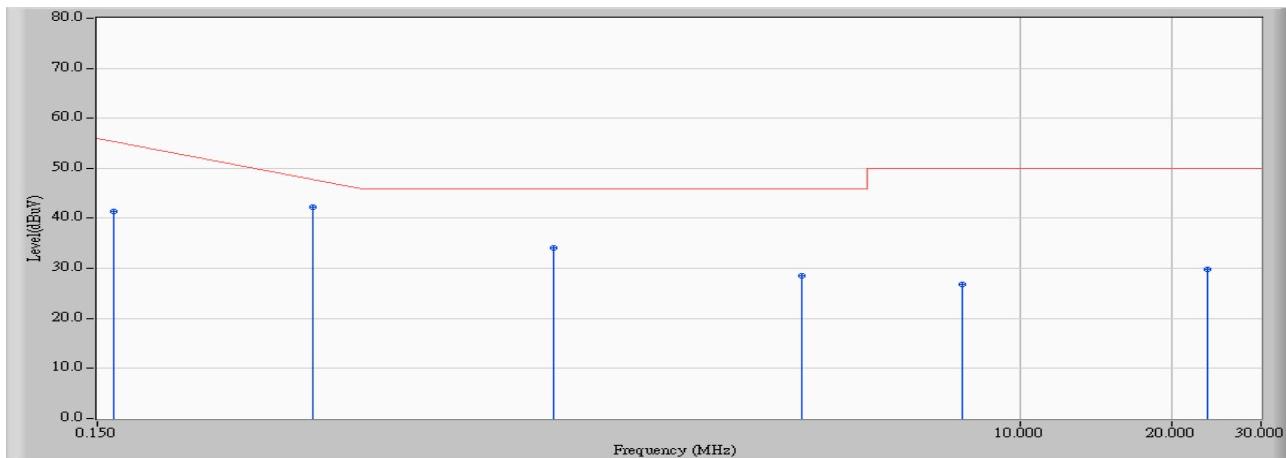


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 0.300 | 48.220 | 48.520 | -17.137 | 65.657 | QUASIPEAK |
| 2 | 0.400 | 0.310 | 42.100 | 42.410 | -16.447 | 58.857 | QUASIPEAK |
| 3 | 1.197 | 0.330 | 39.000 | 39.330 | -16.670 | 56.000 | QUASIPEAK |
| 4 * | 3.697 | 0.390 | 39.820 | 40.210 | -15.790 | 56.000 | QUASIPEAK |
| 5 | 7.720 | 0.460 | 38.660 | 39.120 | -20.880 | 60.000 | QUASIPEAK |
| 6 | 23.517 | 1.040 | 36.420 | 37.460 | -22.540 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/02 - 03:46 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 2 |

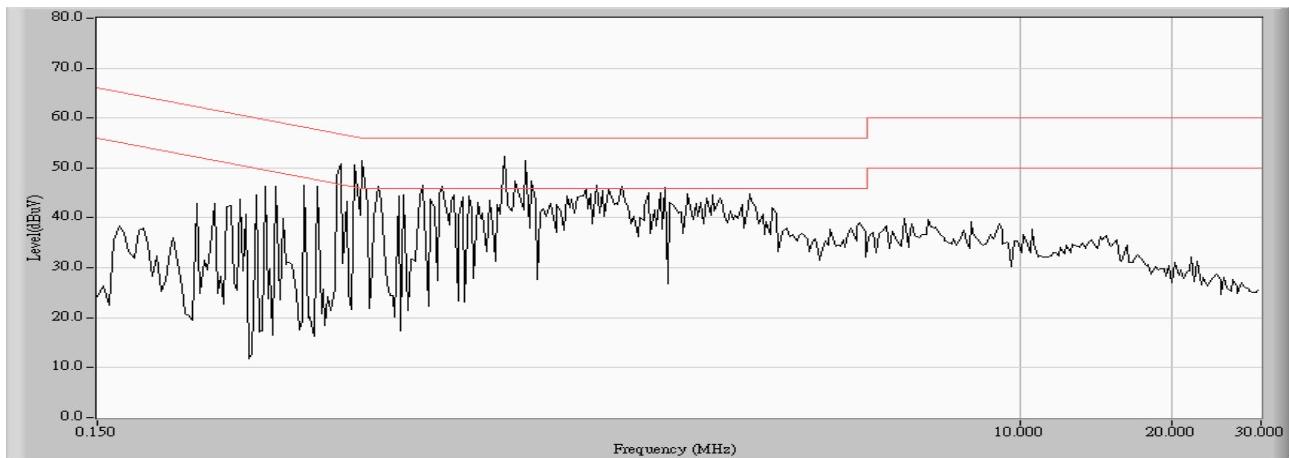


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 0.300 | 41.130 | 41.430 | -14.227 | 55.657 | AVERAGE |
| 2 * | 0.400 | 0.310 | 41.950 | 42.260 | -6.597 | 48.857 | AVERAGE |
| 3 | 1.197 | 0.330 | 33.860 | 34.190 | -11.810 | 46.000 | AVERAGE |
| 4 | 3.697 | 0.390 | 28.050 | 28.440 | -17.560 | 46.000 | AVERAGE |
| 5 | 7.720 | 0.460 | 26.260 | 26.720 | -23.280 | 50.000 | AVERAGE |
| 6 | 23.517 | 1.040 | 28.680 | 29.720 | -20.280 | 50.000 | AVERAGE |

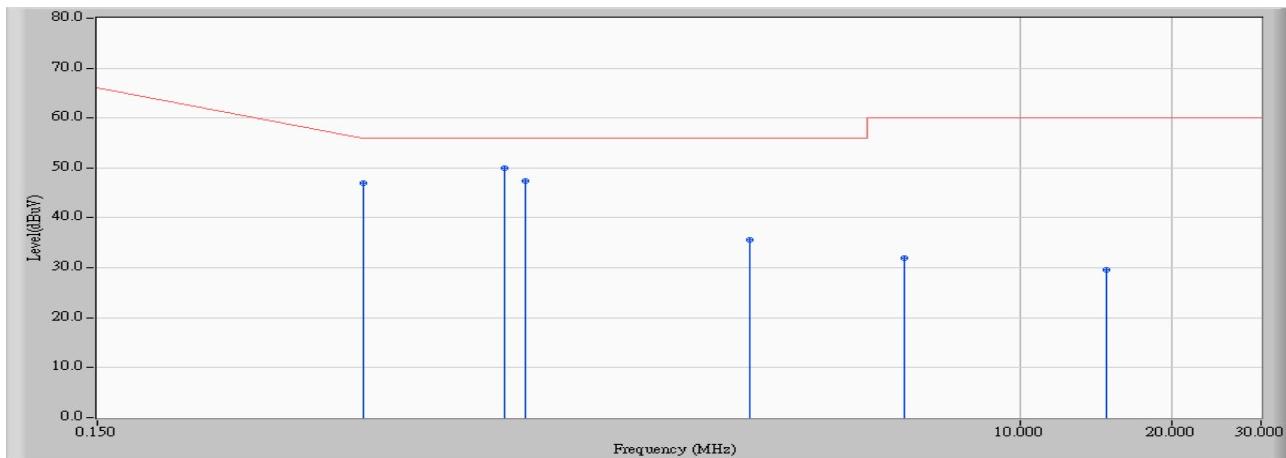
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:10 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:11 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3 |

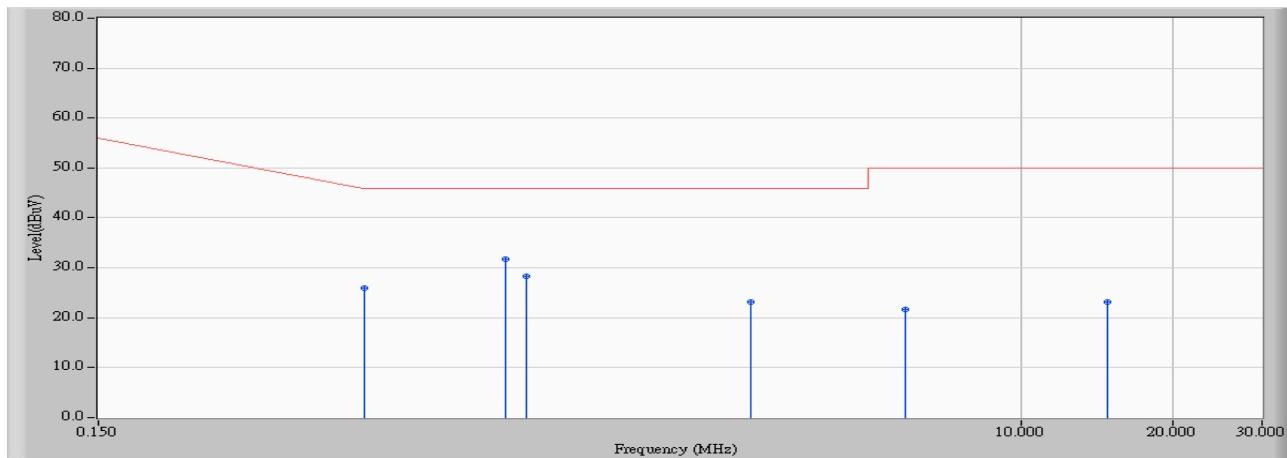


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.502 | 0.300 | 46.650 | 46.950 | -9.050 | 56.000 | QUASIPEAK |
| 2 * | 0.955 | 0.310 | 49.700 | 50.010 | -5.990 | 56.000 | QUASIPEAK |
| 3 | 1.052 | 0.320 | 47.070 | 47.390 | -8.610 | 56.000 | QUASIPEAK |
| 4 | 2.927 | 0.370 | 35.320 | 35.690 | -20.310 | 56.000 | QUASIPEAK |
| 5 | 5.931 | 0.460 | 31.440 | 31.900 | -28.100 | 60.000 | QUASIPEAK |
| 6 | 14.795 | 0.990 | 28.530 | 29.520 | -30.480 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:11 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-L(023) - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3 |

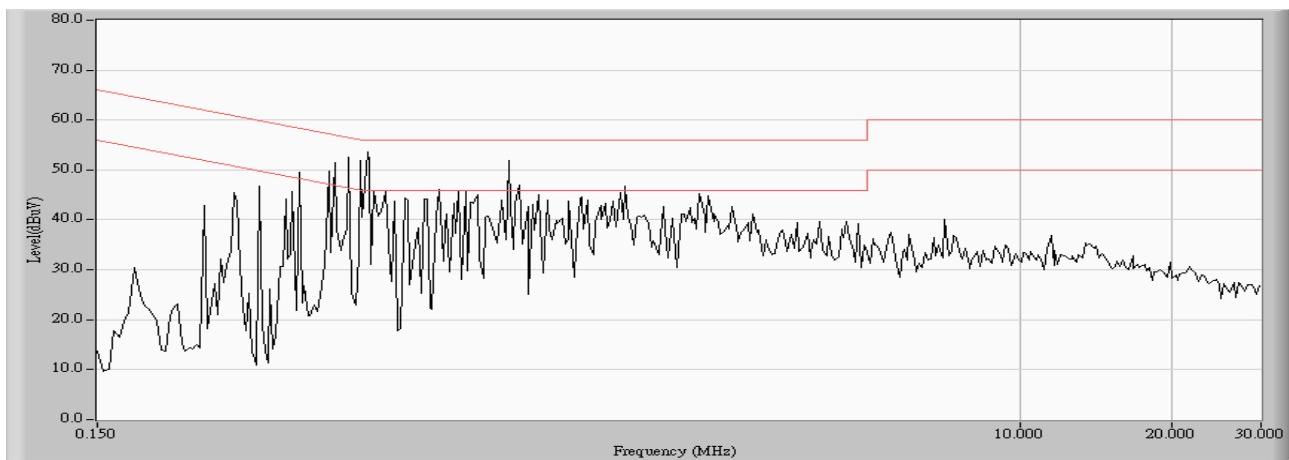


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.502 | 0.300 | 25.670 | 25.970 | -20.030 | 46.000 | AVERAGE |
| 2 * | 0.955 | 0.310 | 31.340 | 31.650 | -14.350 | 46.000 | AVERAGE |
| 3 | 1.052 | 0.320 | 27.940 | 28.260 | -17.740 | 46.000 | AVERAGE |
| 4 | 2.927 | 0.370 | 22.730 | 23.100 | -22.900 | 46.000 | AVERAGE |
| 5 | 5.931 | 0.460 | 21.220 | 21.680 | -28.320 | 50.000 | AVERAGE |
| 6 | 14.795 | 0.990 | 22.250 | 23.240 | -26.760 | 50.000 | AVERAGE |

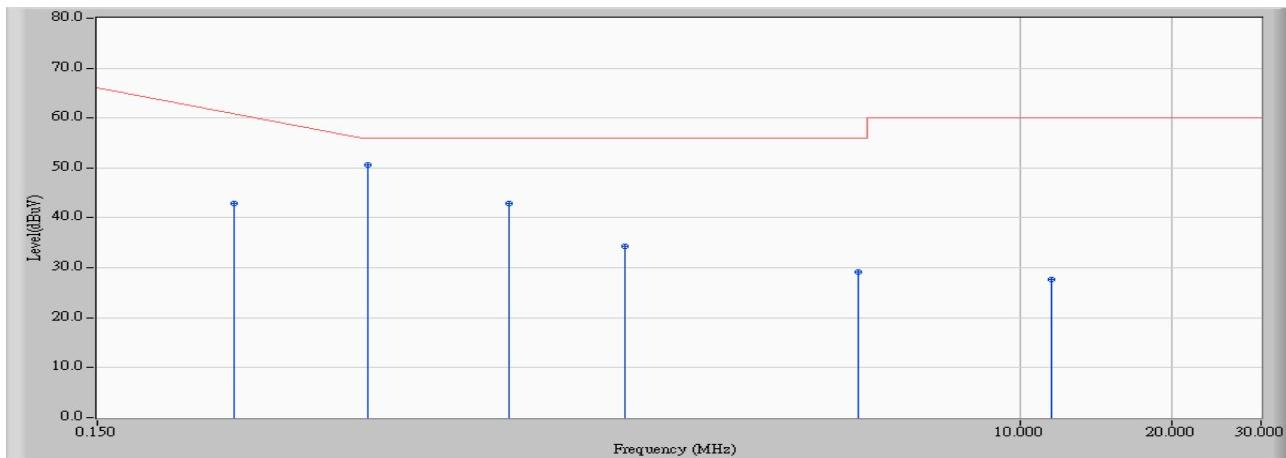
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:12 |
| Limit : CISPR_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 3 |



| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:12 |
| Limit : CISPR_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 3 |

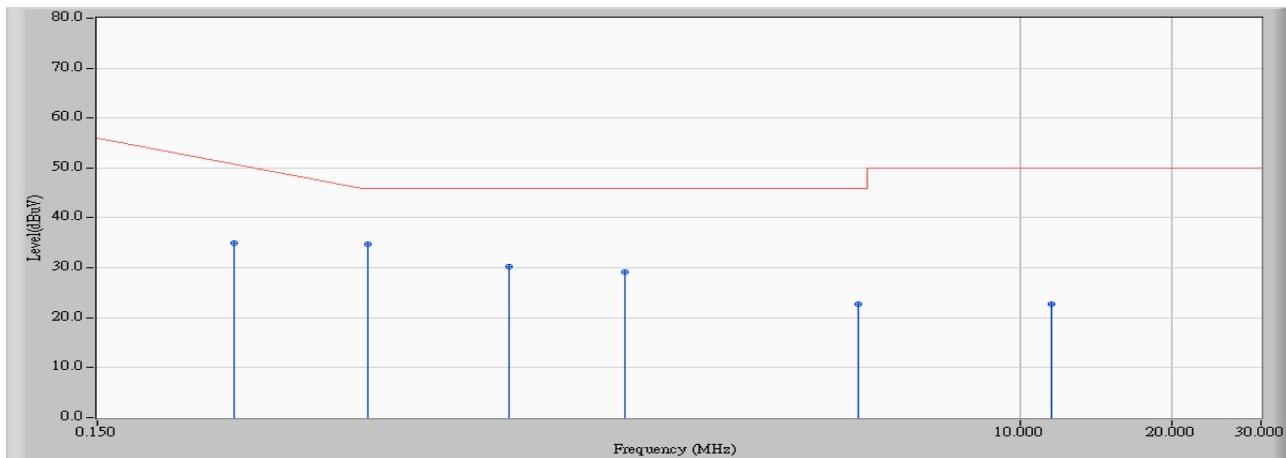


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.279 | 0.300 | 42.520 | 42.820 | -19.494 | 62.314 | QUASIPEAK |
| 2 * | 0.513 | 0.310 | 50.290 | 50.600 | -5.400 | 56.000 | QUASIPEAK |
| 3 | 0.978 | 0.320 | 42.500 | 42.820 | -13.180 | 56.000 | QUASIPEAK |
| 4 | 1.658 | 0.340 | 34.050 | 34.390 | -21.610 | 56.000 | QUASIPEAK |
| 5 | 4.798 | 0.410 | 28.700 | 29.110 | -26.890 | 56.000 | QUASIPEAK |
| 6 | 11.552 | 0.597 | 26.970 | 27.567 | -32.433 | 60.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|-----------------------------|
| Site : SR-1 | Time : 2008/04/26 - 07:12 |
| Limit : CISPR_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : LISN-N(023) - Line2 |
| Power : AC 230V/50Hz | Note : Mode 3 |



| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.279 | 0.300 | 34.600 | 34.900 | -17.414 | 52.314 | AVERAGE |
| 2 * | 0.513 | 0.310 | 34.440 | 34.750 | -11.250 | 46.000 | AVERAGE |
| 3 | 0.978 | 0.320 | 29.950 | 30.270 | -15.730 | 46.000 | AVERAGE |
| 4 | 1.658 | 0.340 | 28.850 | 29.190 | -16.810 | 46.000 | AVERAGE |
| 5 | 4.798 | 0.410 | 22.320 | 22.730 | -23.270 | 46.000 | AVERAGE |
| 6 | 11.552 | 0.597 | 22.190 | 22.787 | -27.213 | 50.000 | AVERAGE |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3.7. Test Photograph

Test Mode : Mode 1:

Description : Front View of Conducted Test



Test Mode : Mode 1:

Description : Back View of Conducted Test



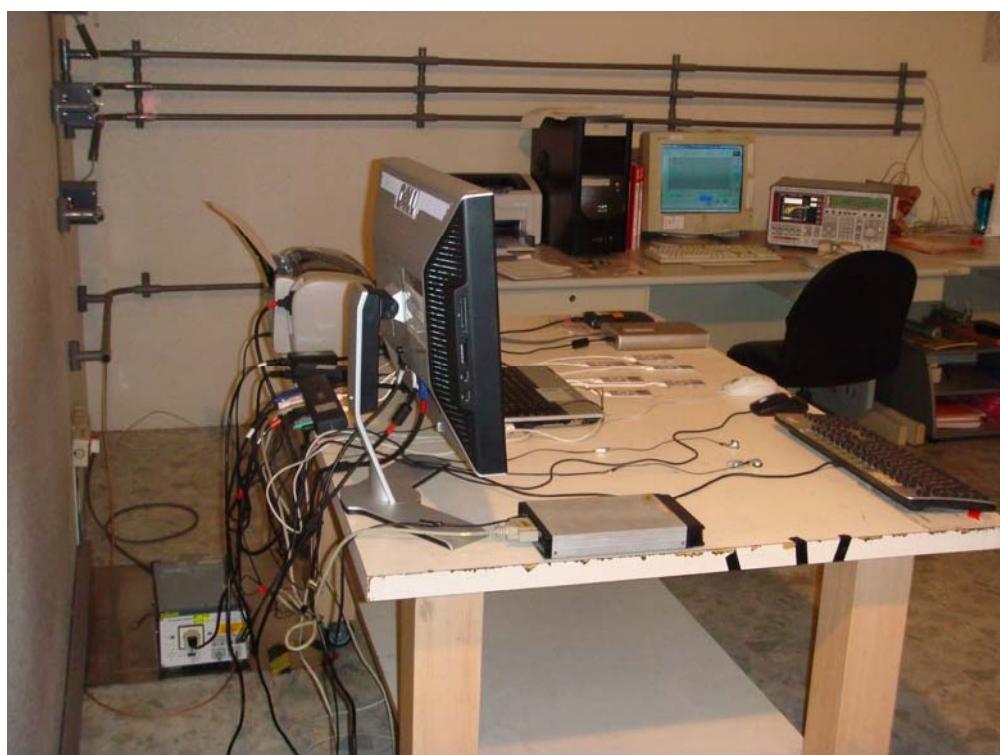
Test Mode : Mode 2:

Description : Front View of Conducted Test



Test Mode : Mode 2:

Description : Back View of Conducted Test



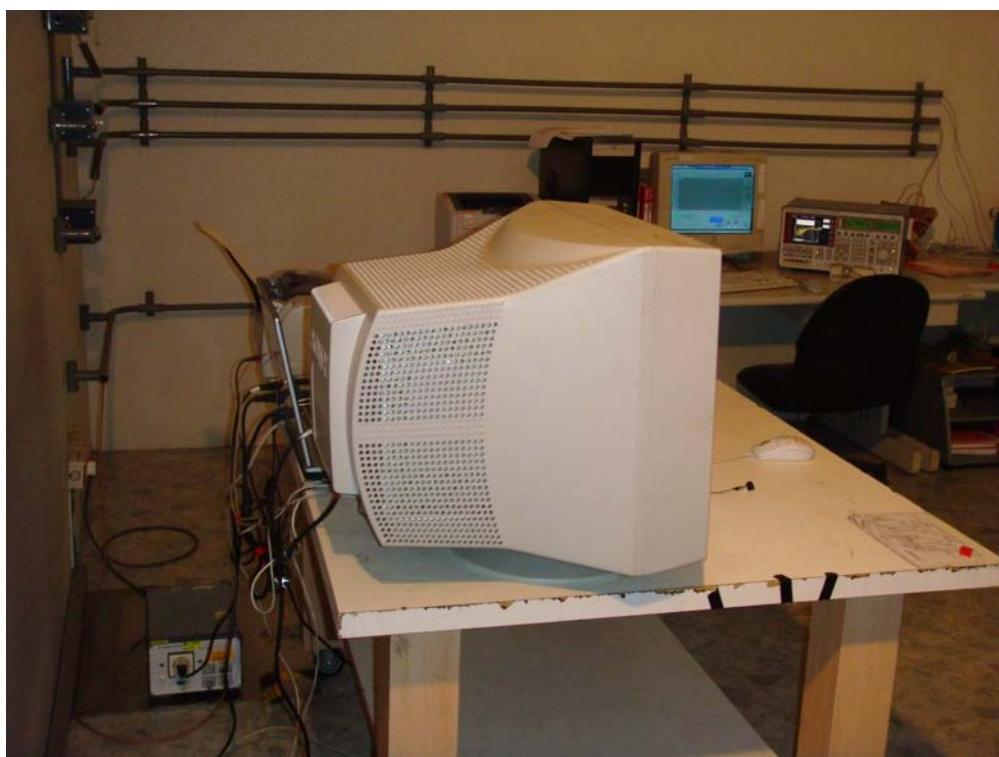
Test Mode : Mode 3:

Description : Front View of Conducted Test



Test Mode : Mode 3:

Description : Back View of Conducted Test

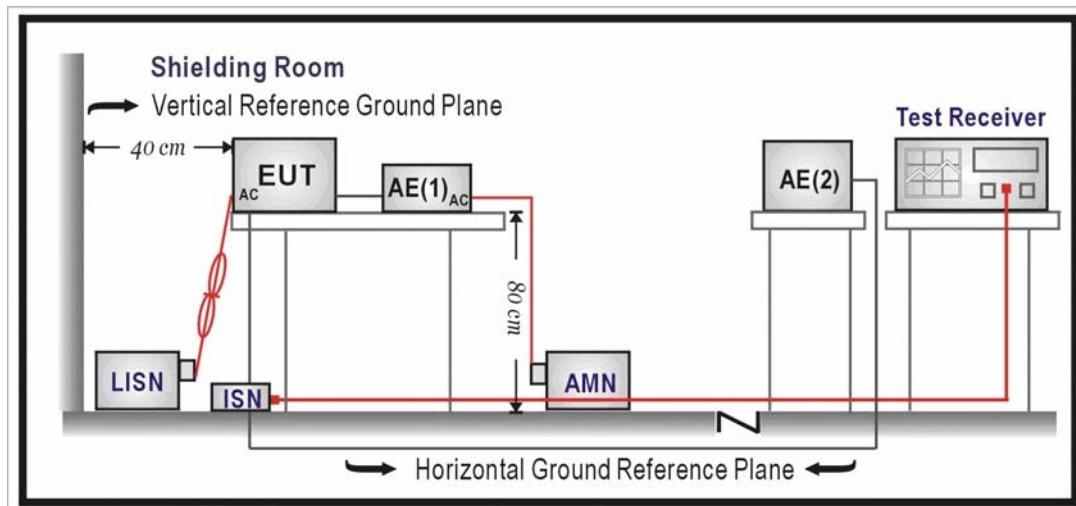


4. Conducted Emissions (Telecommunication Ports)

4.1. Test Specification

According to EMC Standard : EN 55022

4.2. Test Setup



4.3. Limit

| Limits | | |
|--------------------|--------------|--------------|
| Frequency (MHz) | QP (dBuV) | AV (dBuV) |
| 0.15 - 0.50 | 84 – 74 | 74 – 64 |
| 0.50 - 30 | 74 | 64 |

Remarks:

The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz.

4.4. Test Procedure

Telecommunication Port:

The mains voltage shall be supplied to the EUT via the LISN when the measurement of telecommunication port is performed. The common mode disturbances at the telecommunication port shall be connected to the ISN, which is 150 ohm impedance.

Both alternative cables are tested related to the LCL requested. The measurement range is from 150kHz to 30MHz. The bandwidth of measurement is set to 9kHz.

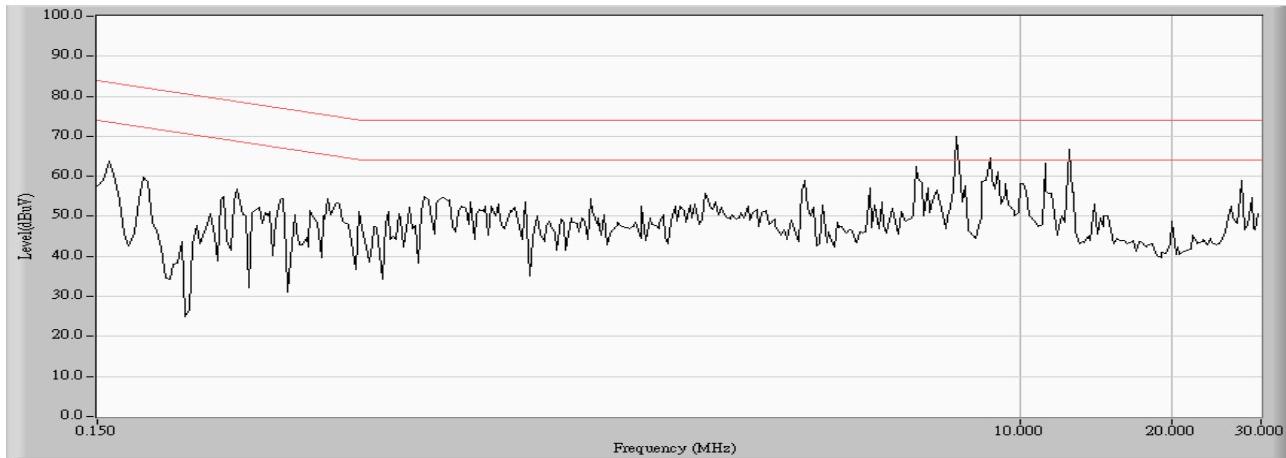
The 60dB LCL ISN is used for cat. 5 cable, 50dB LCL ISN is used for cat. 3 and 80dB LCL is used for alternative one.

4.5. Deviation from Test Standard

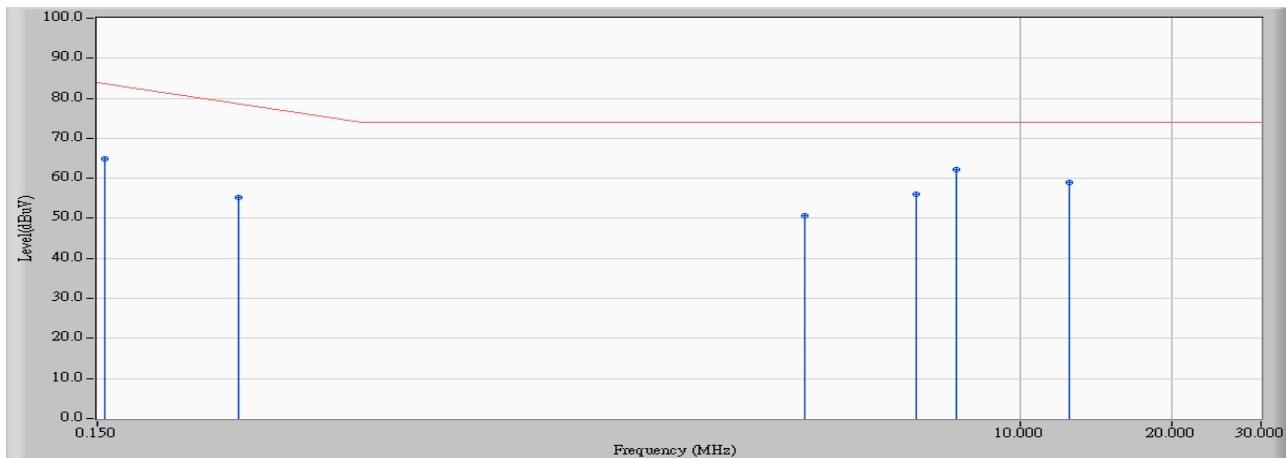
No deviation.

4.6. Test Result

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:36 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 10M |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:38 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 10M |

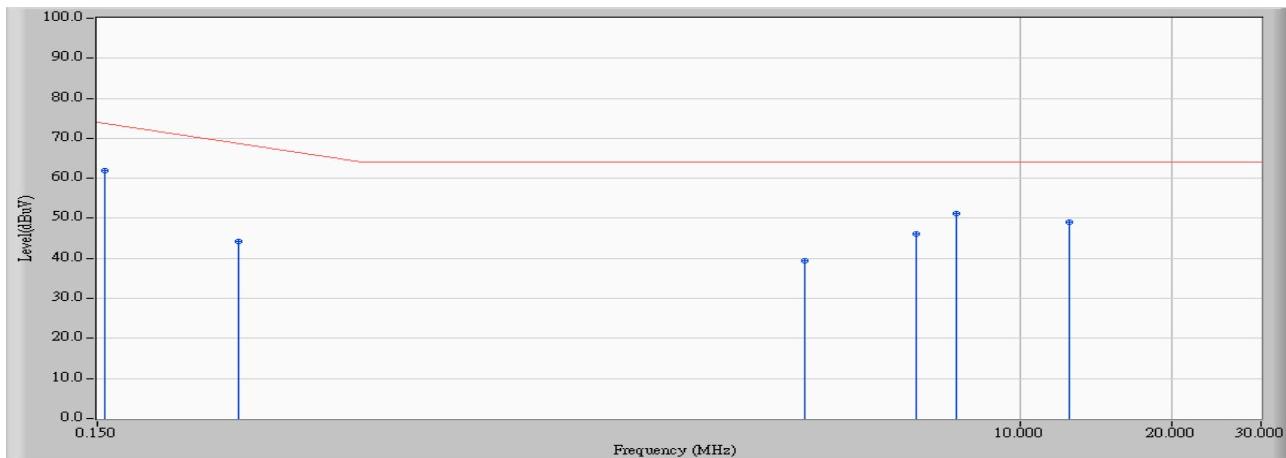


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.155 | 9.968 | 54.960 | 64.928 | -18.929 | 83.857 | QUASIPEAK |
| 2 | 0.285 | 9.935 | 45.370 | 55.305 | -24.838 | 80.143 | QUASIPEAK |
| 3 | 3.752 | 9.890 | 40.680 | 50.570 | -23.430 | 74.000 | QUASIPEAK |
| 4 | 6.248 | 9.870 | 46.160 | 56.030 | -17.970 | 74.000 | QUASIPEAK |
| 5 * | 7.502 | 9.860 | 52.230 | 62.090 | -11.910 | 74.000 | QUASIPEAK |
| 6 | 12.502 | 9.953 | 49.020 | 58.973 | -15.027 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:38 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 10M |

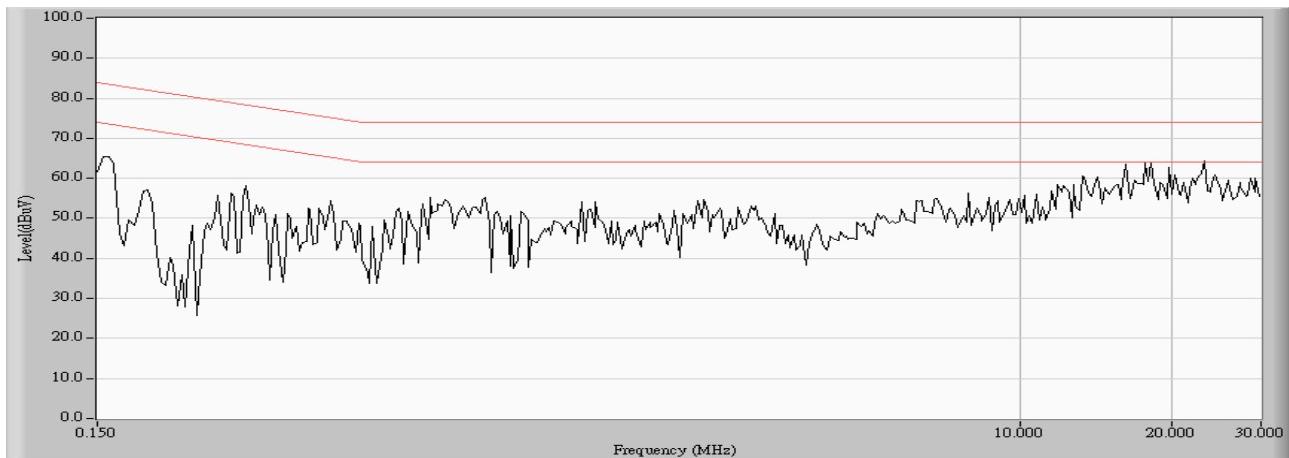


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.155 | 9.968 | 51.990 | 61.958 | -11.899 | 73.857 | AVERAGE |
| 2 | | 0.285 | 9.935 | 34.430 | 44.365 | -25.778 | 70.143 | AVERAGE |
| 3 | | 3.752 | 9.890 | 29.640 | 39.530 | -24.470 | 64.000 | AVERAGE |
| 4 | | 6.248 | 9.870 | 36.190 | 46.060 | -17.940 | 64.000 | AVERAGE |
| 5 | | 7.502 | 9.860 | 41.300 | 51.160 | -12.840 | 64.000 | AVERAGE |
| 6 | | 12.502 | 9.953 | 39.030 | 48.983 | -15.017 | 64.000 | AVERAGE |

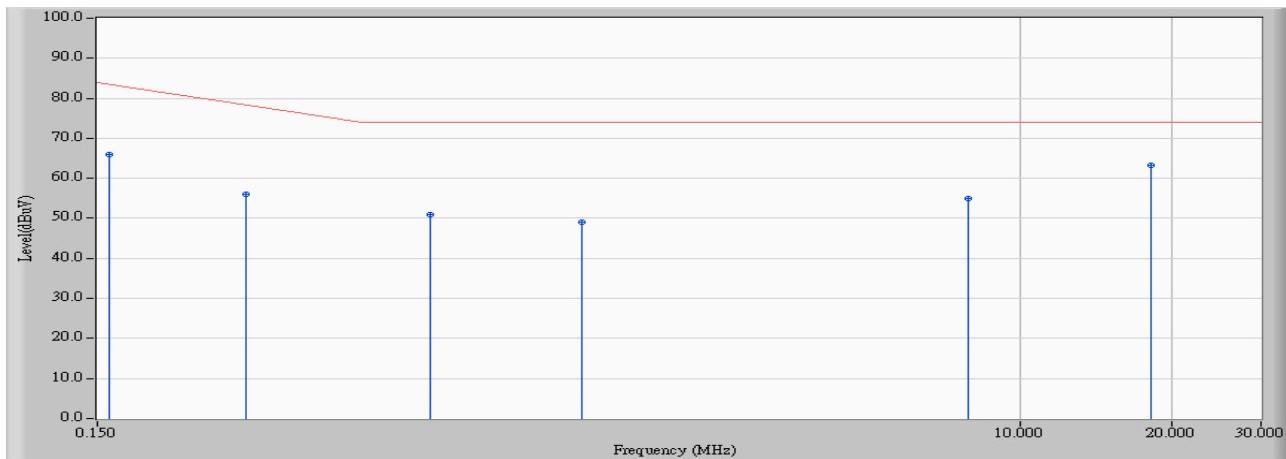
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:27 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 100M |



| | |
|------------------------------|---------------------------|
| Engineer : | |
| Site : SR-1 | Time : 2008/04/03 - 15:28 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 100M |

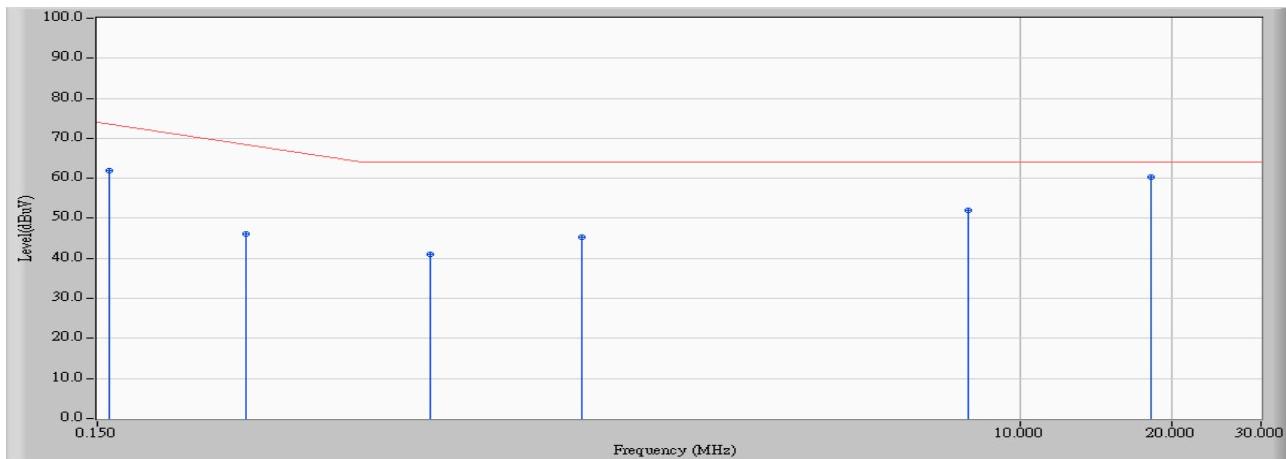


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | | 0.158 | 10.205 | 55.850 | 66.055 | -17.716 | 83.771 | QUASIPEAK |
| 2 | | 0.295 | 10.152 | 45.930 | 56.082 | -23.775 | 79.857 | QUASIPEAK |
| 3 | | 0.685 | 10.081 | 40.900 | 50.981 | -23.019 | 74.000 | QUASIPEAK |
| 4 | | 1.361 | 10.040 | 38.940 | 48.980 | -25.020 | 74.000 | QUASIPEAK |
| 5 | | 7.923 | 9.990 | 44.850 | 54.840 | -19.160 | 74.000 | QUASIPEAK |
| 6 | * | 18.244 | 10.150 | 53.240 | 63.390 | -10.610 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Engineer : | |
| Site : SR-1 | Time : 2008/04/03 - 15:28 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 100M |

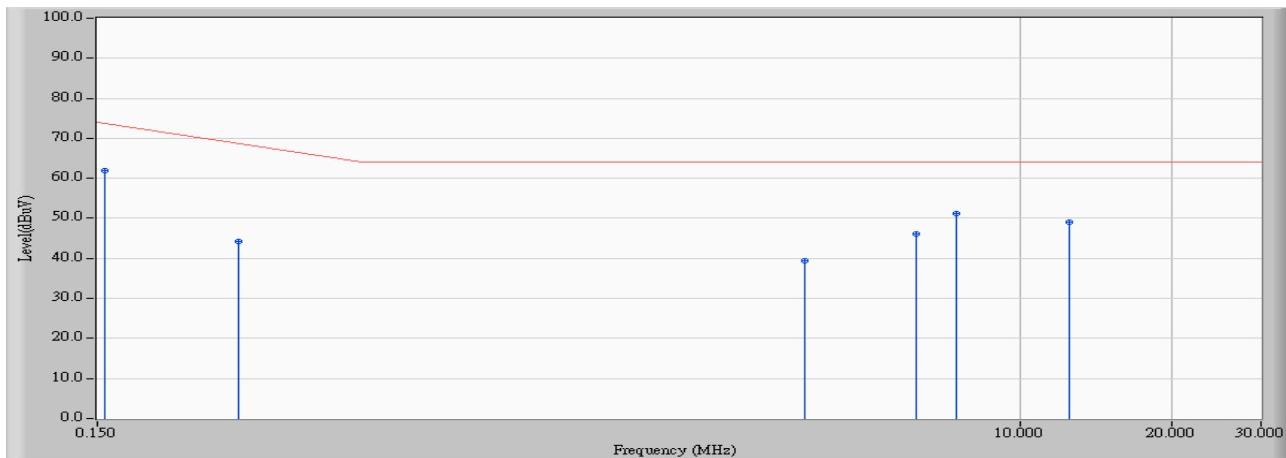


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | | 0.158 | 10.205 | 51.820 | 62.025 | -11.746 | 73.771 | AVERAGE |
| 2 | | 0.295 | 10.152 | 36.070 | 46.222 | -23.635 | 69.857 | AVERAGE |
| 3 | | 0.685 | 10.081 | 30.830 | 40.911 | -23.089 | 64.000 | AVERAGE |
| 4 | | 1.361 | 10.040 | 35.310 | 45.350 | -18.650 | 64.000 | AVERAGE |
| 5 | | 7.923 | 9.990 | 41.910 | 51.900 | -12.100 | 64.000 | AVERAGE |
| 6 | * | 18.244 | 10.150 | 50.210 | 60.360 | -3.640 | 64.000 | AVERAGE |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:38 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, Telecom |

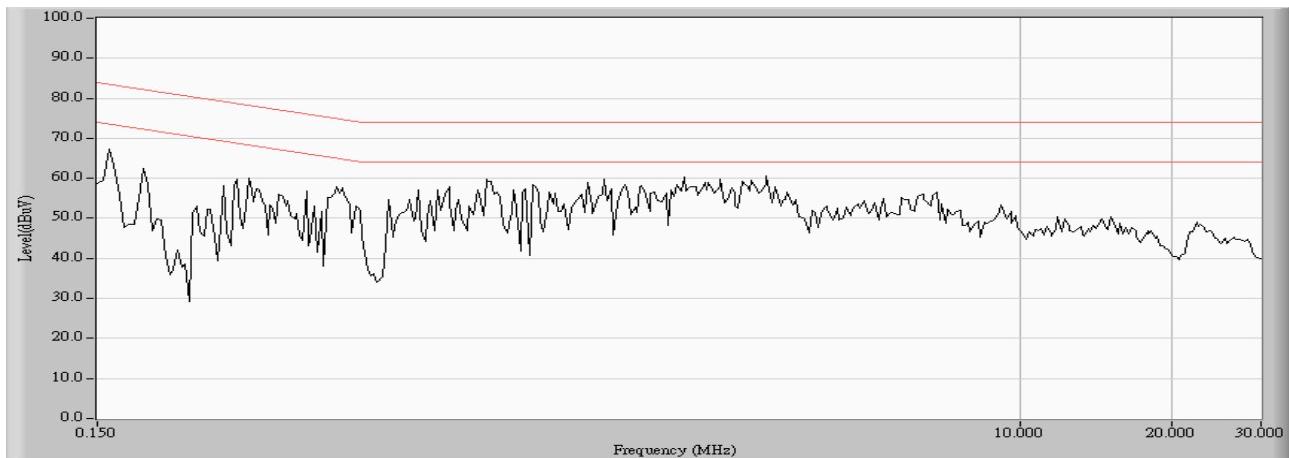


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.155 | 9.968 | 51.990 | 61.958 | -11.899 | 73.857 | AVERAGE |
| 2 | | 0.285 | 9.935 | 34.430 | 44.365 | -25.778 | 70.143 | AVERAGE |
| 3 | | 3.752 | 9.890 | 29.640 | 39.530 | -24.470 | 64.000 | AVERAGE |
| 4 | | 6.248 | 9.870 | 36.190 | 46.060 | -17.940 | 64.000 | AVERAGE |
| 5 | | 7.502 | 9.860 | 41.300 | 51.160 | -12.840 | 64.000 | AVERAGE |
| 6 | | 12.502 | 9.953 | 39.030 | 48.983 | -15.017 | 64.000 | AVERAGE |

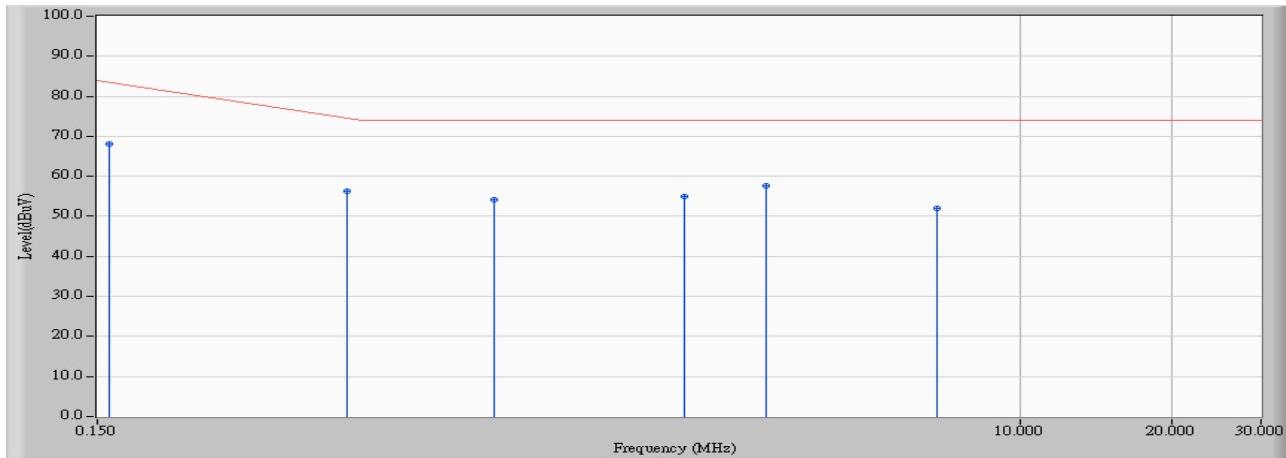
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:47 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, Telecom |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:49 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, Telecom |

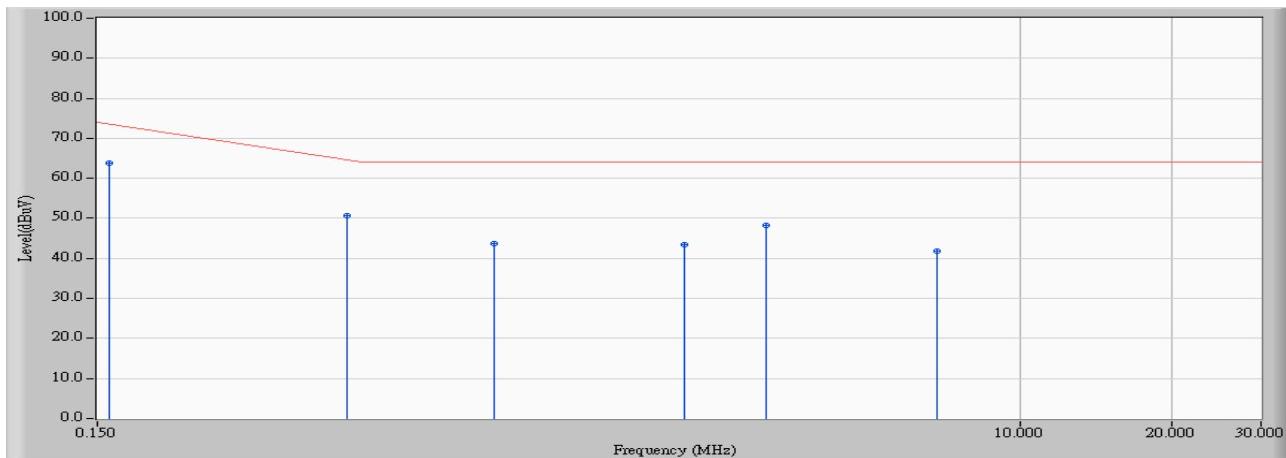


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.158 | 10.027 | 58.140 | 68.167 | -15.604 | 83.771 | QUASIPEAK |
| 2 | | 0.468 | 9.953 | 46.460 | 56.413 | -18.501 | 74.914 | QUASIPEAK |
| 3 | | 0.914 | 9.930 | 44.180 | 54.110 | -19.890 | 74.000 | QUASIPEAK |
| 4 | | 2.173 | 9.920 | 45.120 | 55.040 | -18.960 | 74.000 | QUASIPEAK |
| 5 | | 3.162 | 9.910 | 47.850 | 57.760 | -16.240 | 74.000 | QUASIPEAK |
| 6 | | 6.877 | 9.890 | 42.060 | 51.950 | -22.050 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:49 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, Telecom |

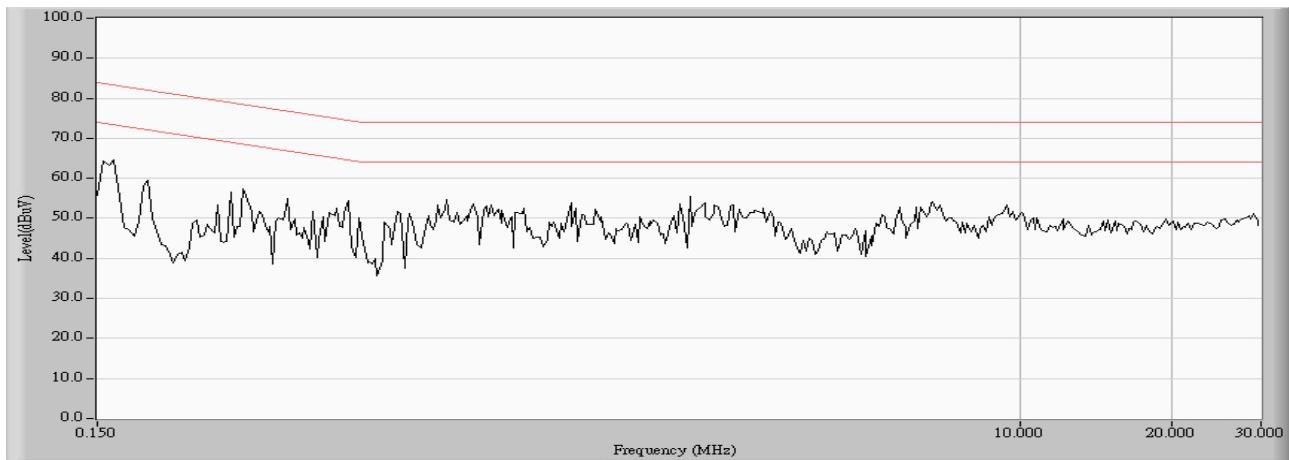


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.158 | 10.027 | 53.890 | 63.917 | -9.854 | 73.771 | AVERAGE |
| 2 | | 0.468 | 9.953 | 40.710 | 50.663 | -14.251 | 64.914 | AVERAGE |
| 3 | | 0.914 | 9.930 | 33.770 | 43.700 | -20.300 | 64.000 | AVERAGE |
| 4 | | 2.173 | 9.920 | 33.450 | 43.370 | -20.630 | 64.000 | AVERAGE |
| 5 | | 3.162 | 9.910 | 38.480 | 48.390 | -15.610 | 64.000 | AVERAGE |
| 6 | | 6.877 | 9.890 | 31.960 | 41.850 | -22.150 | 64.000 | AVERAGE |

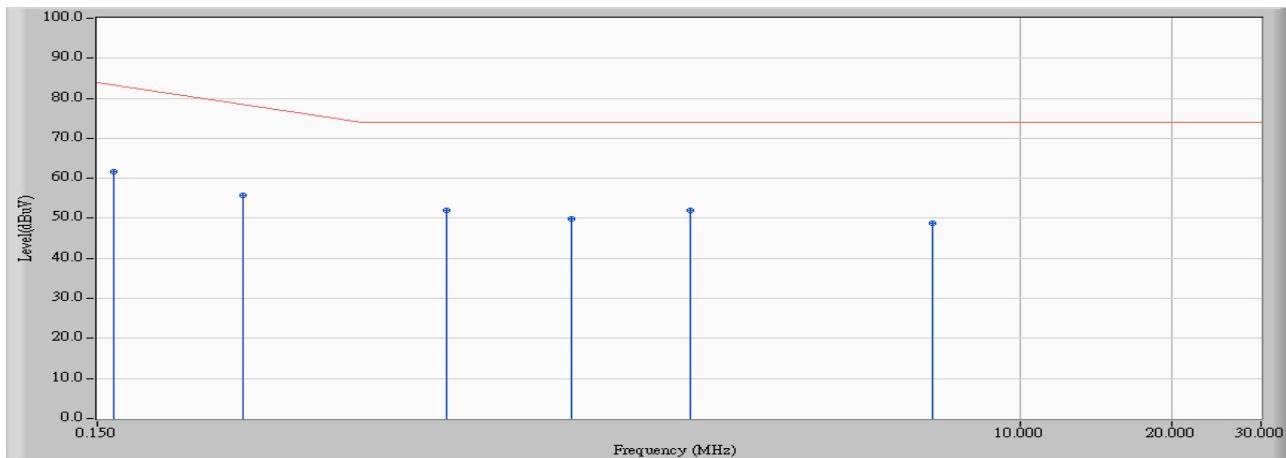
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:19 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 1G |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:21 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 1G |

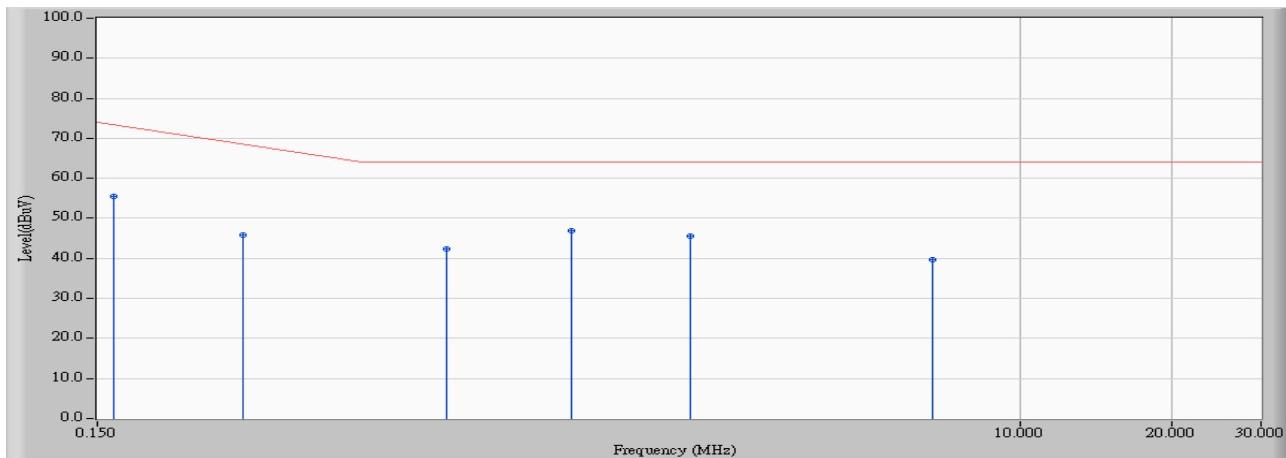


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 10.202 | 51.450 | 61.652 | -22.005 | 83.657 | QUASIPEAK |
| 2 | 0.291 | 10.153 | 45.580 | 55.733 | -24.238 | 79.971 | QUASIPEAK |
| 3 | * 0.736 | 10.080 | 41.970 | 52.050 | -21.950 | 74.000 | QUASIPEAK |
| 4 | 1.298 | 10.045 | 39.790 | 49.835 | -24.165 | 74.000 | QUASIPEAK |
| 5 | 2.228 | 10.010 | 41.910 | 51.920 | -22.080 | 74.000 | QUASIPEAK |
| 6 | 6.740 | 9.980 | 38.710 | 48.690 | -25.310 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:21 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 1, 1G |

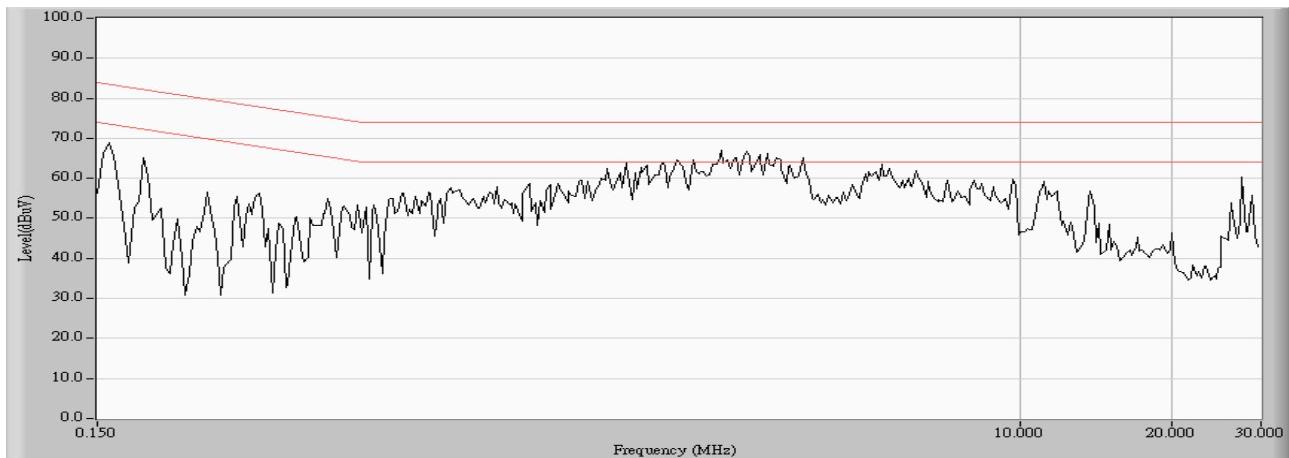


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 10.202 | 45.370 | 55.572 | -18.085 | 73.657 | AVERAGE |
| 2 | 0.291 | 10.153 | 35.600 | 45.753 | -24.218 | 69.971 | AVERAGE |
| 3 | 0.736 | 10.080 | 32.270 | 42.350 | -21.650 | 64.000 | AVERAGE |
| 4 * | 1.298 | 10.045 | 36.760 | 46.805 | -17.195 | 64.000 | AVERAGE |
| 5 | 2.228 | 10.010 | 35.660 | 45.670 | -18.330 | 64.000 | AVERAGE |
| 6 | 6.740 | 9.980 | 29.790 | 39.770 | -24.230 | 64.000 | AVERAGE |

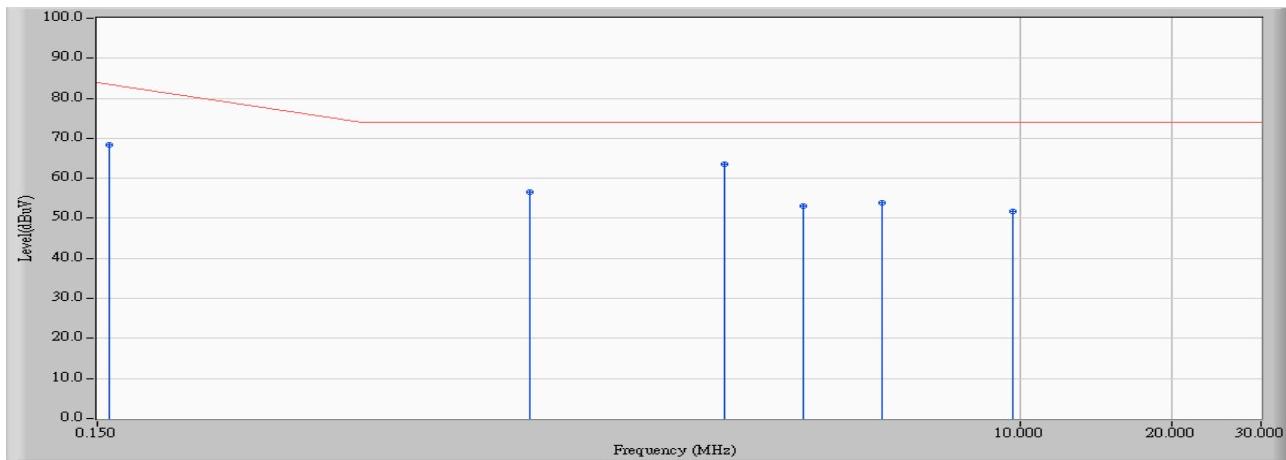
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:04 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 10M |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:06 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 10M |

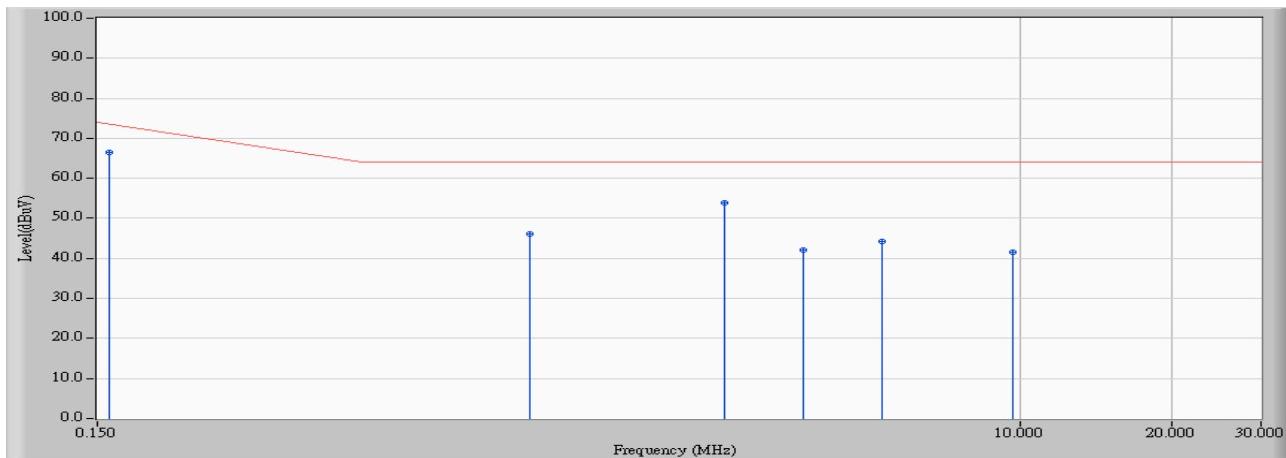


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|-----------------|---------------------|----------------------|----------------------|-------------|--------------|---------------|
| 1 | 0.158 | 9.967 | 58.350 | 68.317 | -15.454 | 83.771 | QUASIPEAK |
| 2 | 1.072 | 9.900 | 46.710 | 56.610 | -17.390 | 74.000 | QUASIPEAK |
| 3 * | 2.602 | 9.900 | 53.560 | 63.460 | -10.540 | 74.000 | QUASIPEAK |
| 4 | 3.728 | 9.890 | 43.190 | 53.080 | -20.920 | 74.000 | QUASIPEAK |
| 5 | 5.338 | 9.880 | 44.110 | 53.990 | -20.010 | 74.000 | QUASIPEAK |
| 6 | 9.673 | 9.850 | 42.010 | 51.860 | -22.140 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:06 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 10M |

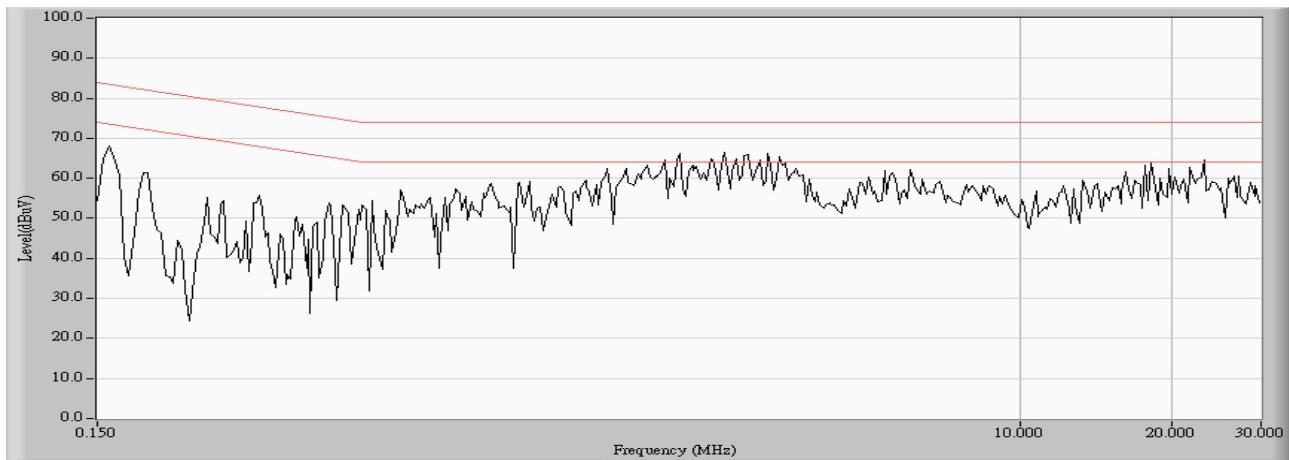


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.158 | 9.967 | 56.510 | 66.477 | -7.294 | 73.771 | AVERAGE |
| 2 | | 1.072 | 9.900 | 36.240 | 46.140 | -17.860 | 64.000 | AVERAGE |
| 3 | | 2.602 | 9.900 | 43.980 | 53.880 | -10.120 | 64.000 | AVERAGE |
| 4 | | 3.728 | 9.890 | 32.260 | 42.150 | -21.850 | 64.000 | AVERAGE |
| 5 | | 5.338 | 9.880 | 34.330 | 44.210 | -19.790 | 64.000 | AVERAGE |
| 6 | | 9.673 | 9.850 | 31.590 | 41.440 | -22.560 | 64.000 | AVERAGE |

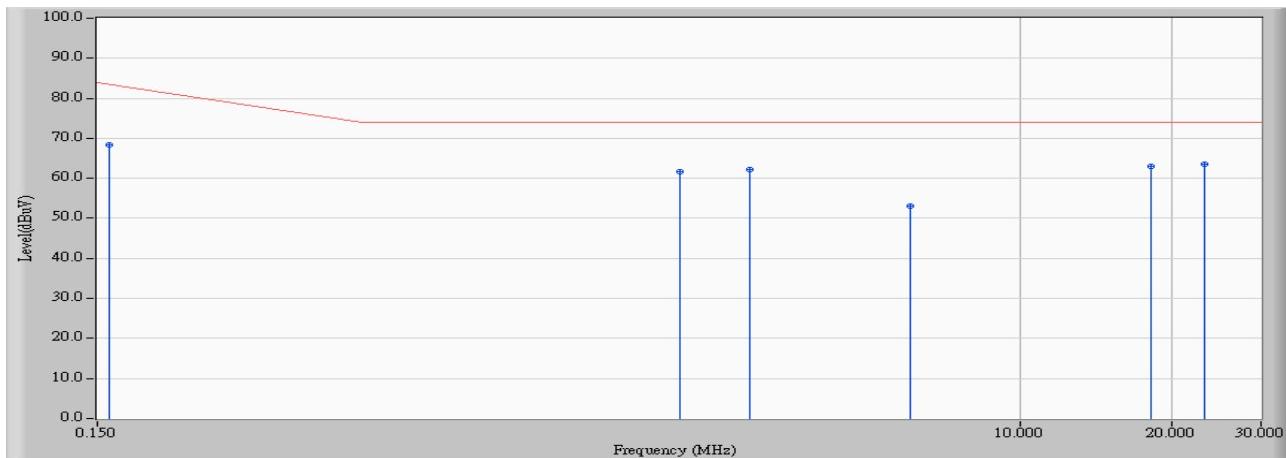
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:08 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 100M |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:10 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 100M |

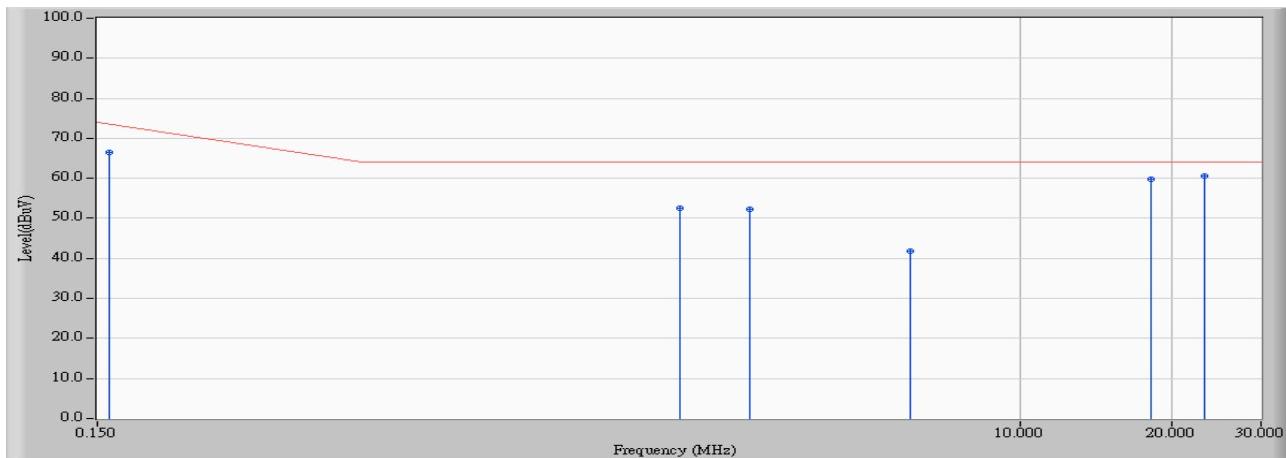


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.158 | 9.967 | 58.410 | 68.377 | -15.394 | 83.771 | QUASIPEAK |
| 2 | 2.131 | 9.910 | 51.830 | 61.740 | -12.260 | 74.000 | QUASIPEAK |
| 3 | 2.917 | 9.900 | 52.220 | 62.120 | -11.880 | 74.000 | QUASIPEAK |
| 4 | 6.088 | 9.870 | 43.300 | 53.170 | -20.830 | 74.000 | QUASIPEAK |
| 5 | 18.244 | 9.990 | 52.960 | 62.950 | -11.050 | 74.000 | QUASIPEAK |
| 6 | * | 9.970 | 53.620 | 63.590 | -10.410 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:10 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 100M |

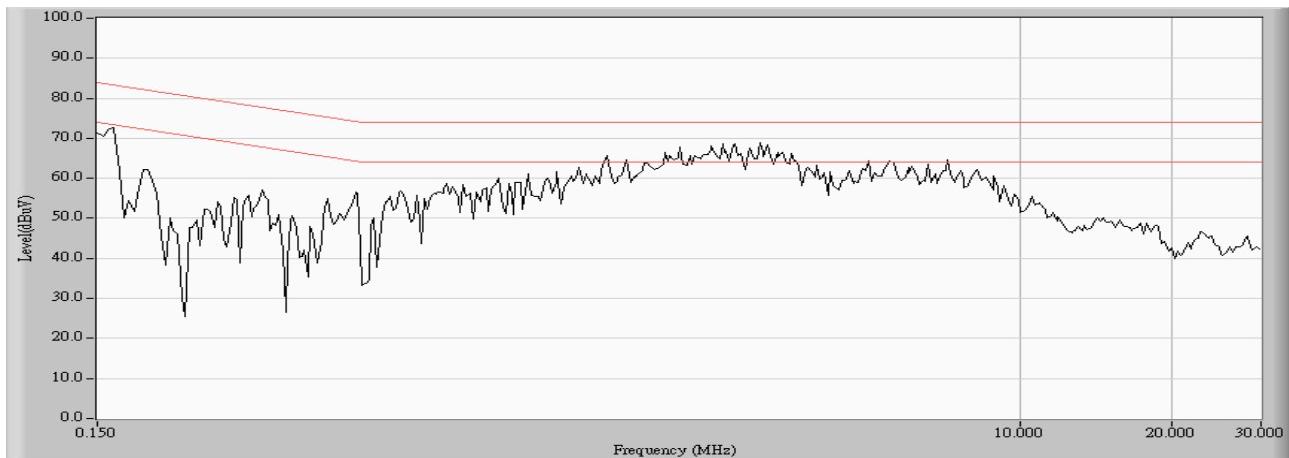


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.158 | 9.967 | 56.580 | 66.547 | -7.224 | 73.771 | AVERAGE |
| 2 | 2.131 | 9.910 | 42.690 | 52.600 | -11.400 | 64.000 | AVERAGE |
| 3 | 2.917 | 9.900 | 42.340 | 52.240 | -11.760 | 64.000 | AVERAGE |
| 4 | 6.088 | 9.870 | 31.990 | 41.860 | -22.140 | 64.000 | AVERAGE |
| 5 | 18.244 | 9.990 | 49.780 | 59.770 | -4.230 | 64.000 | AVERAGE |
| 6 | * | 9.970 | 50.620 | 60.590 | -3.410 | 64.000 | AVERAGE |

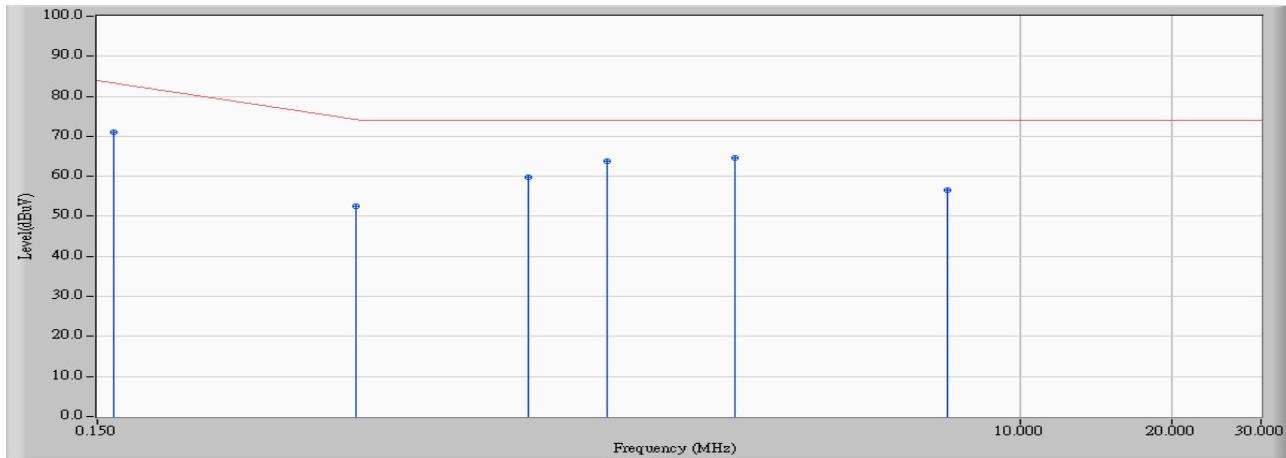
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 14:44 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, Telecom |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 14:46 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, Telecom |

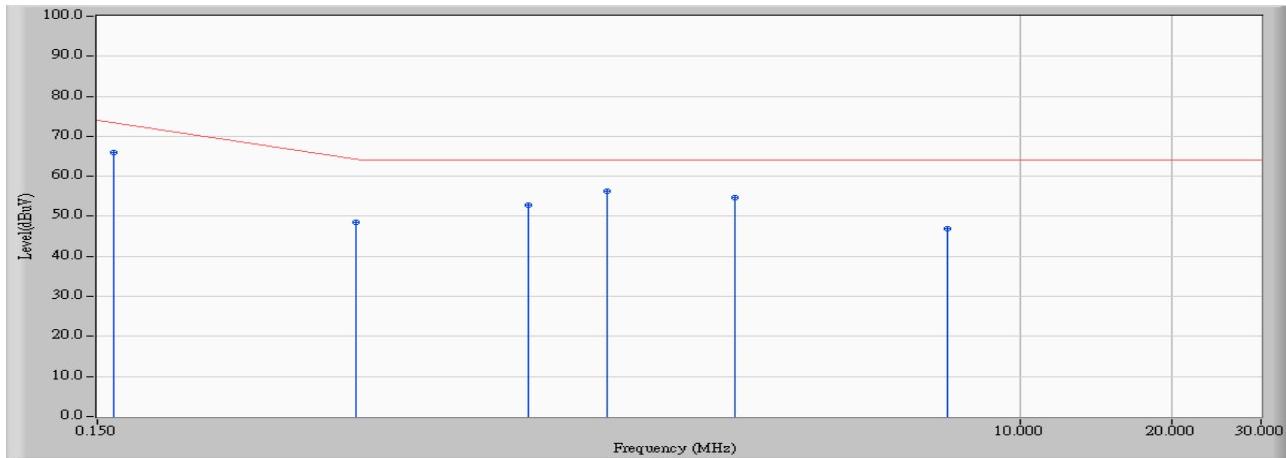


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 10.026 | 61.070 | 71.096 | -12.561 | 83.657 | QUASIPEAK |
| 2 | 0.486 | 9.950 | 42.600 | 52.550 | -21.850 | 74.400 | QUASIPEAK |
| 3 | 1.064 | 9.930 | 49.900 | 59.830 | -14.170 | 74.000 | QUASIPEAK |
| 4 | 1.525 | 9.920 | 53.920 | 63.840 | -10.160 | 74.000 | QUASIPEAK |
| 5 * | 2.732 | 9.920 | 54.650 | 64.570 | -9.430 | 74.000 | QUASIPEAK |
| 6 | 7.201 | 9.890 | 46.770 | 56.660 | -17.340 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 14:46 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, Telecom |

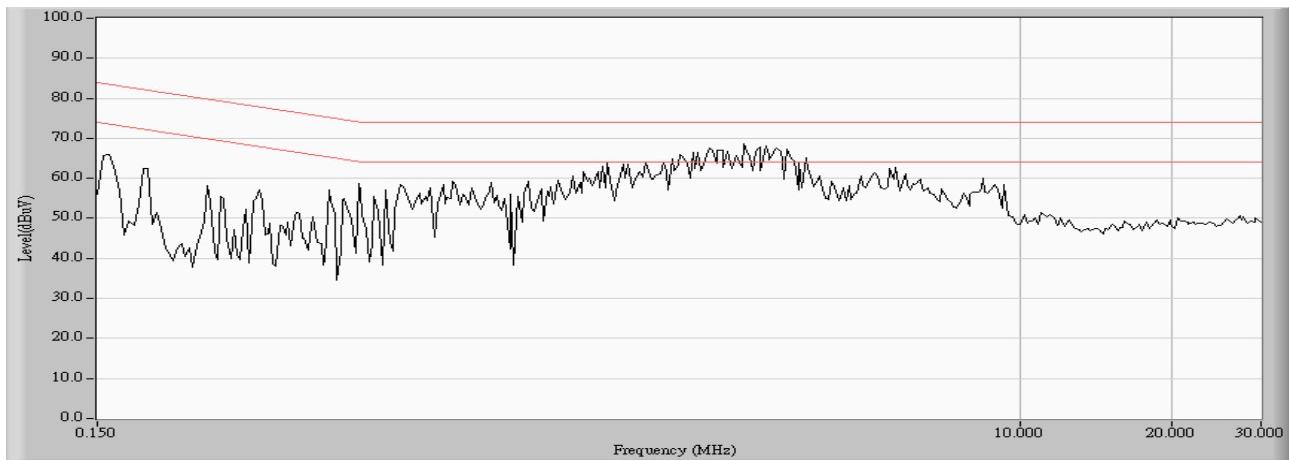


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.162 | 10.026 | 55.910 | 65.936 | -7.721 | 73.657 | AVERAGE |
| 2 | 0.486 | 9.950 | 38.470 | 48.420 | -15.980 | 64.400 | AVERAGE |
| 3 | 1.064 | 9.930 | 43.000 | 52.930 | -11.070 | 64.000 | AVERAGE |
| 4 * | 1.525 | 9.920 | 46.400 | 56.320 | -7.680 | 64.000 | AVERAGE |
| 5 | 2.732 | 9.920 | 44.790 | 54.710 | -9.290 | 64.000 | AVERAGE |
| 6 | 7.201 | 9.890 | 37.110 | 47.000 | -17.000 | 64.000 | AVERAGE |

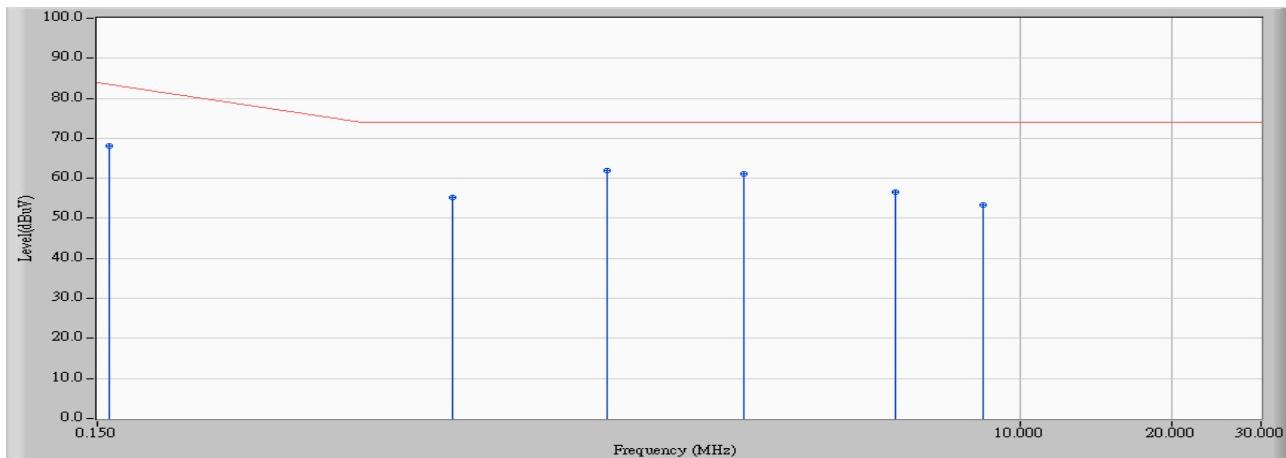
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:12 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 1G |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:14 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 1G |

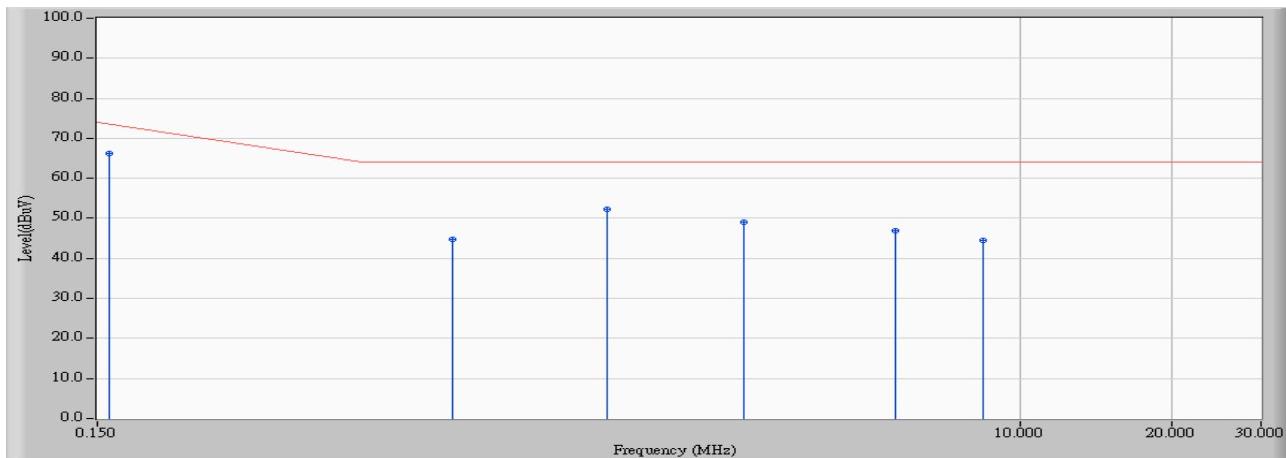


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.158 | 10.205 | 57.900 | 68.105 | -15.666 | 83.771 | QUASIPEAK |
| 2 | 0.755 | 10.080 | 45.270 | 55.350 | -18.650 | 74.000 | QUASIPEAK |
| 3 | * 1.533 | 10.030 | 51.800 | 61.830 | -12.170 | 74.000 | QUASIPEAK |
| 4 | 2.849 | 10.000 | 51.220 | 61.220 | -12.780 | 74.000 | QUASIPEAK |
| 5 | 5.662 | 9.980 | 46.460 | 56.440 | -17.560 | 74.000 | QUASIPEAK |
| 6 | 8.455 | 9.990 | 43.460 | 53.450 | -20.550 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/03 - 15:14 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 2, 1G |

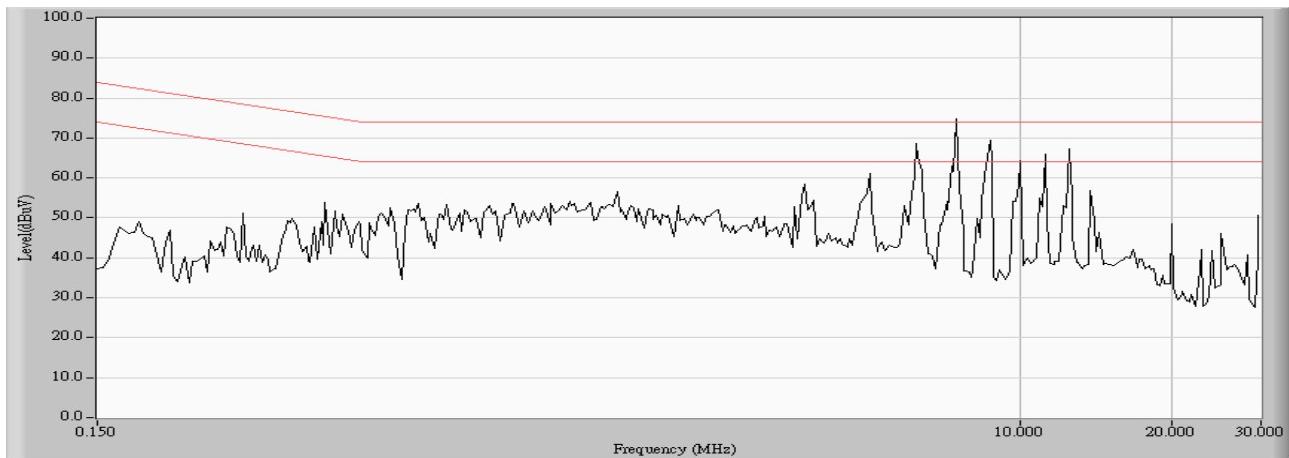


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | * | 0.158 | 10.205 | 56.040 | 66.245 | -7.526 | 73.771 | AVERAGE |
| 2 | | 0.755 | 10.080 | 34.720 | 44.800 | -19.200 | 64.000 | AVERAGE |
| 3 | | 1.533 | 10.030 | 42.190 | 52.220 | -11.780 | 64.000 | AVERAGE |
| 4 | | 2.849 | 10.000 | 39.030 | 49.030 | -14.970 | 64.000 | AVERAGE |
| 5 | | 5.662 | 9.980 | 36.840 | 46.820 | -17.180 | 64.000 | AVERAGE |
| 6 | | 8.455 | 9.990 | 34.470 | 44.460 | -19.540 | 64.000 | AVERAGE |

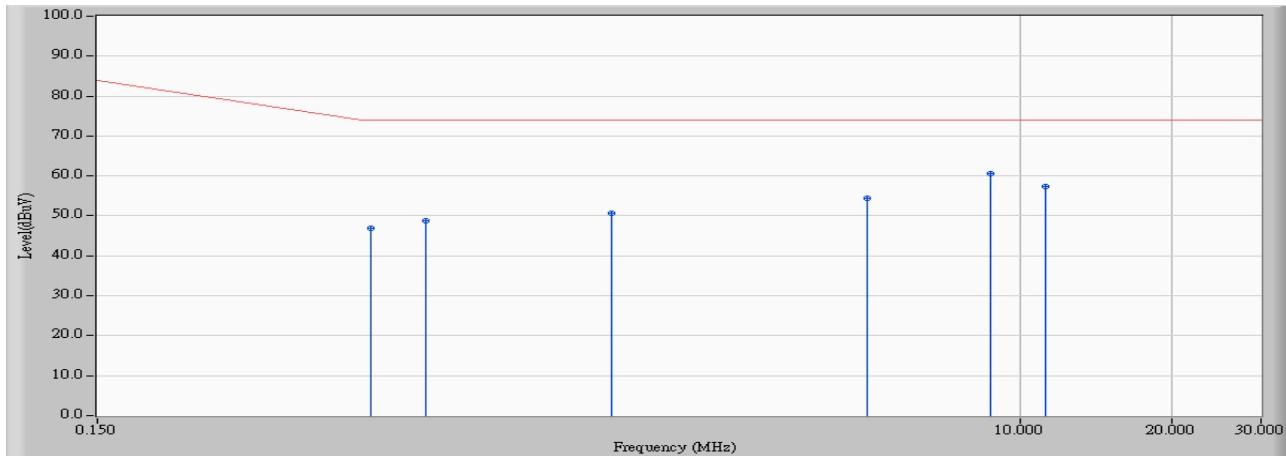
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:41 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 10M |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:44 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 10M |

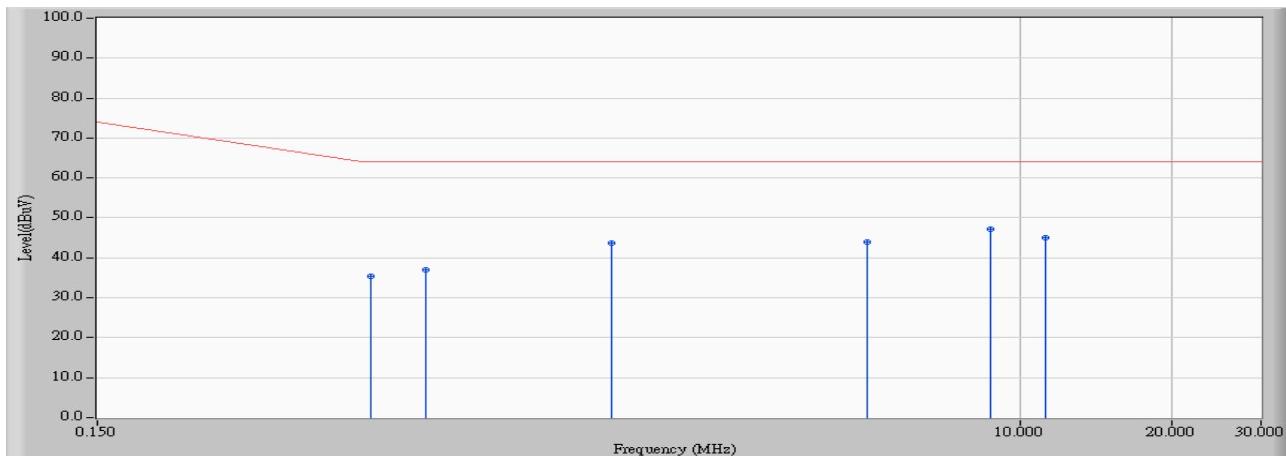


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.521 | 9.900 | 37.150 | 47.050 | -26.950 | 74.000 | QUASIPEAK |
| 2 | 0.670 | 9.900 | 38.850 | 48.750 | -25.250 | 74.000 | QUASIPEAK |
| 3 | 1.563 | 9.910 | 40.740 | 50.650 | -23.350 | 74.000 | QUASIPEAK |
| 4 | 5.000 | 9.880 | 44.550 | 54.430 | -19.570 | 74.000 | QUASIPEAK |
| 5 * | 8.752 | 9.860 | 50.860 | 60.720 | -13.280 | 74.000 | QUASIPEAK |
| 6 | 11.252 | 9.849 | 47.580 | 57.429 | -16.571 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:44 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 10M |

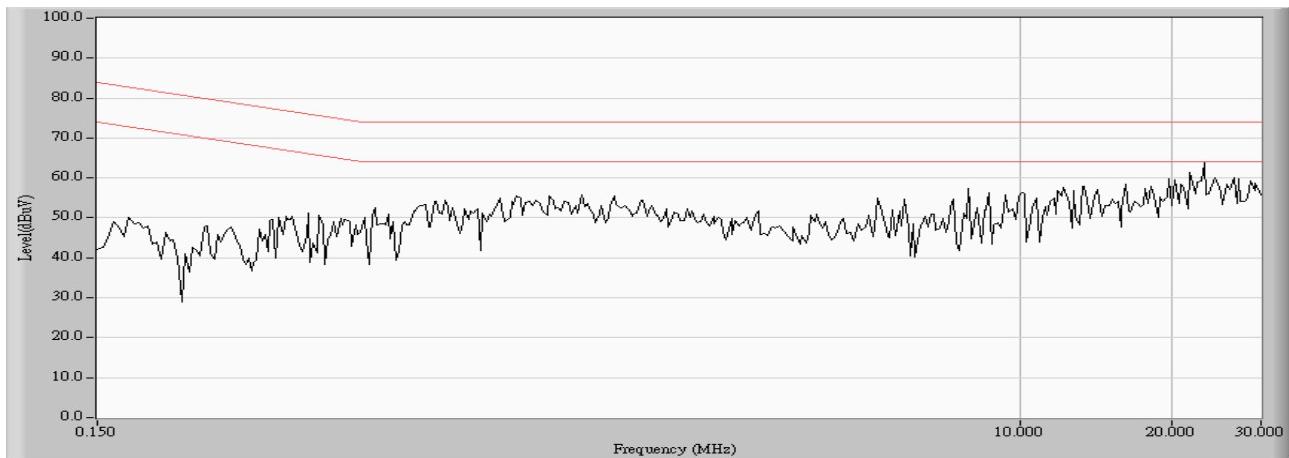


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.521 | 9.900 | 25.440 | 35.340 | -28.660 | 64.000 | AVERAGE |
| 2 | 0.670 | 9.900 | 27.180 | 37.080 | -26.920 | 64.000 | AVERAGE |
| 3 | 1.563 | 9.910 | 33.920 | 43.830 | -20.170 | 64.000 | AVERAGE |
| 4 | 5.000 | 9.880 | 33.990 | 43.870 | -20.130 | 64.000 | AVERAGE |
| 5 * | 8.752 | 9.860 | 37.330 | 47.190 | -16.810 | 64.000 | AVERAGE |
| 6 | 11.252 | 9.849 | 35.200 | 45.049 | -18.951 | 64.000 | AVERAGE |

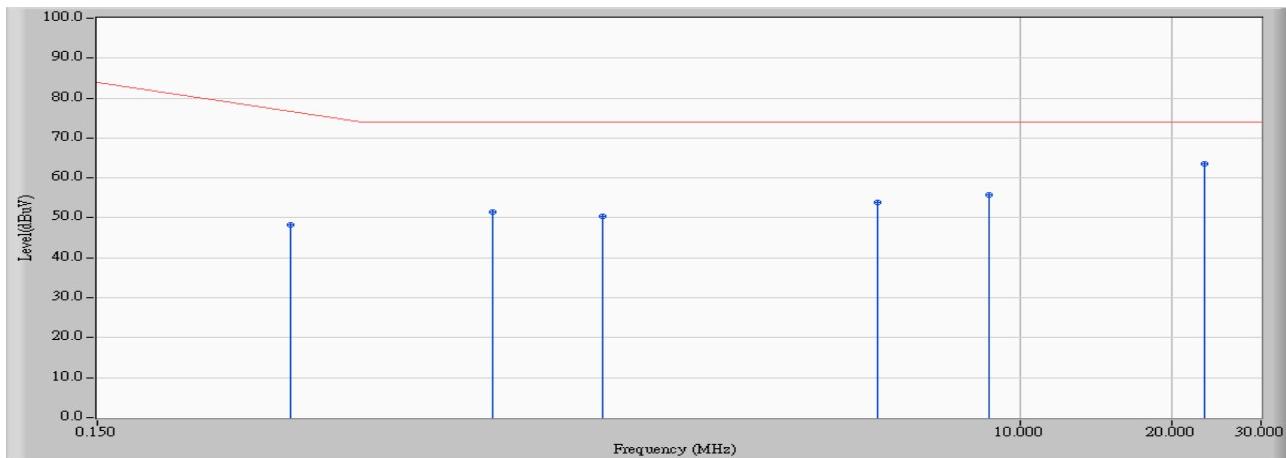
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:34 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 100M |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:37 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 100M |

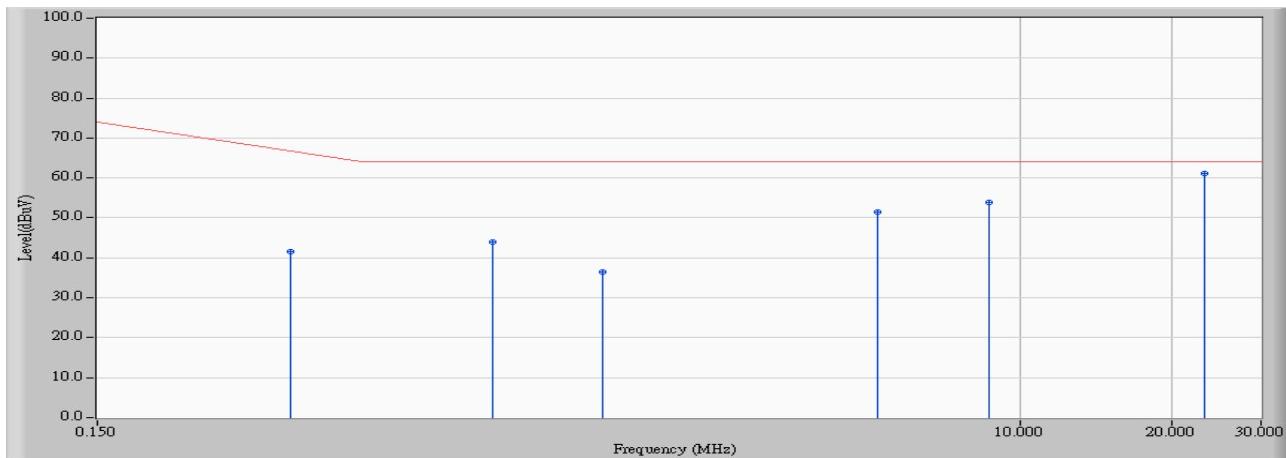


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.361 | 9.920 | 38.390 | 48.310 | -29.661 | 77.971 | QUASIPEAK |
| 2 | 0.908 | 9.900 | 41.560 | 51.460 | -22.540 | 74.000 | QUASIPEAK |
| 3 | 1.502 | 9.903 | 40.380 | 50.283 | -23.717 | 74.000 | QUASIPEAK |
| 4 | 5.236 | 9.880 | 44.020 | 53.900 | -20.100 | 74.000 | QUASIPEAK |
| 5 | 8.716 | 9.860 | 45.880 | 55.740 | -18.260 | 74.000 | QUASIPEAK |
| 6 | * | 9.970 | 53.570 | 63.540 | -10.460 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:37 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T4 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 100M |



| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|---|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.361 | 9.920 | 31.520 | 41.440 | -26.531 | 67.971 | AVERAGE |
| 2 | 0.908 | 9.900 | 34.010 | 43.910 | -20.090 | 64.000 | AVERAGE |
| 3 | 1.502 | 9.903 | 26.610 | 36.513 | -27.487 | 64.000 | AVERAGE |
| 4 | 5.236 | 9.880 | 41.600 | 51.480 | -12.520 | 64.000 | AVERAGE |
| 5 | 8.716 | 9.860 | 44.030 | 53.890 | -10.110 | 64.000 | AVERAGE |
| 6 | * | 9.970 | 51.160 | 61.130 | -2.870 | 64.000 | AVERAGE |

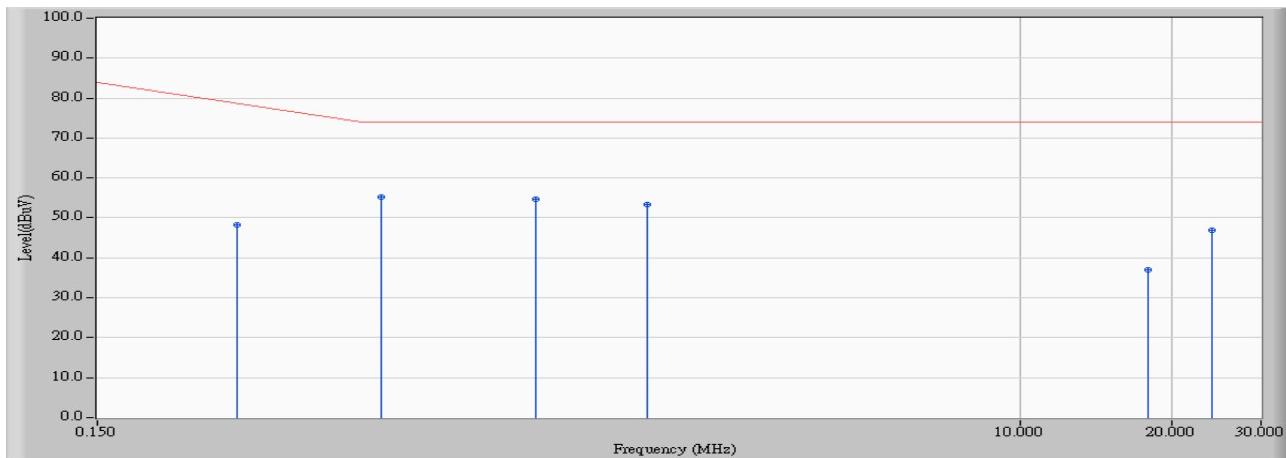
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:53 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, Telecom |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:54 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, Telecom |

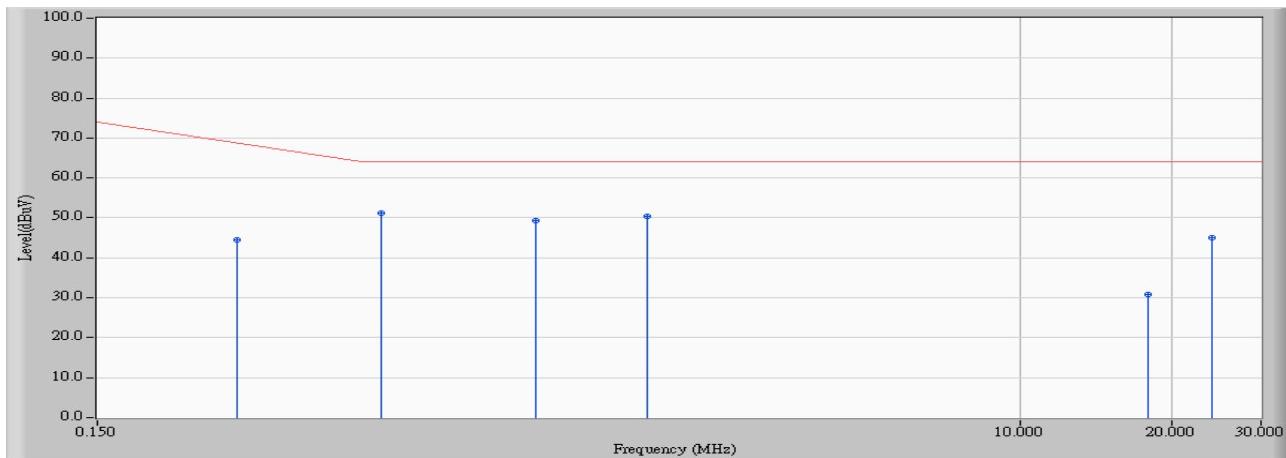


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.283 | 9.996 | 38.380 | 48.376 | -31.824 | 80.200 | QUASIPEAK |
| 2 * | 0.545 | 9.950 | 45.190 | 55.140 | -18.860 | 74.000 | QUASIPEAK |
| 3 | 1.103 | 9.930 | 44.650 | 54.580 | -19.420 | 74.000 | QUASIPEAK |
| 4 | 1.837 | 9.920 | 43.450 | 53.370 | -20.630 | 74.000 | QUASIPEAK |
| 5 | 17.904 | 10.050 | 26.890 | 36.940 | -37.060 | 74.000 | QUASIPEAK |
| 6 | 24.000 | 10.040 | 36.850 | 46.890 | -27.110 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:54 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T2 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, Telecom |



| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.283 | 9.996 | 34.410 | 44.406 | -25.794 | 70.200 | AVERAGE |
| 2 * | 0.545 | 9.950 | 41.260 | 51.210 | -12.790 | 64.000 | AVERAGE |
| 3 | 1.103 | 9.930 | 39.290 | 49.220 | -14.780 | 64.000 | AVERAGE |
| 4 | 1.837 | 9.920 | 40.390 | 50.310 | -13.690 | 64.000 | AVERAGE |
| 5 | 17.904 | 10.050 | 20.680 | 30.730 | -33.270 | 64.000 | AVERAGE |
| 6 | 24.000 | 10.040 | 34.880 | 44.920 | -19.080 | 64.000 | AVERAGE |

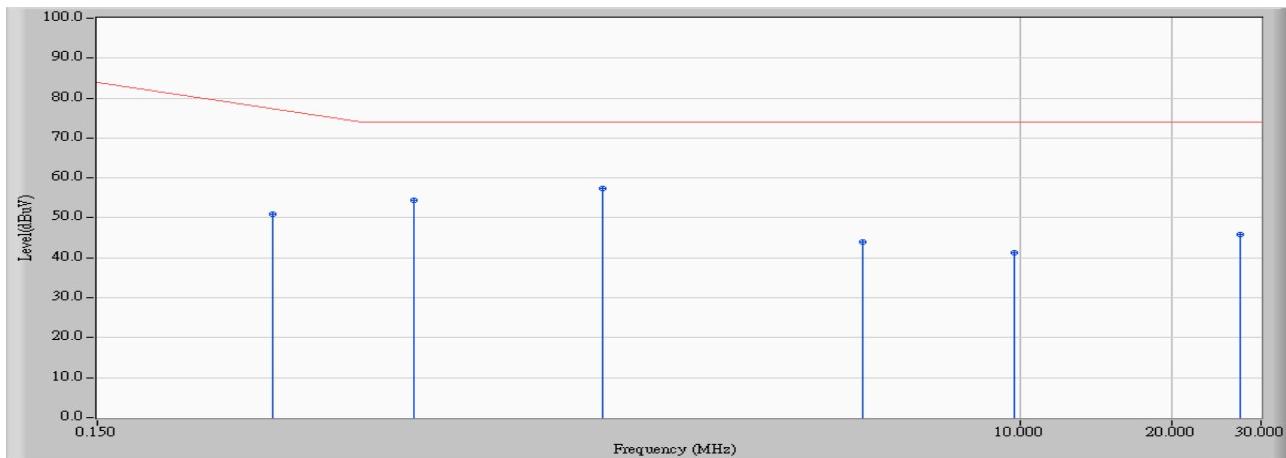
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:15 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 10 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 1G |



| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:17 |
| Limit : ISN_Voltage_B_00M_QP | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 1G |

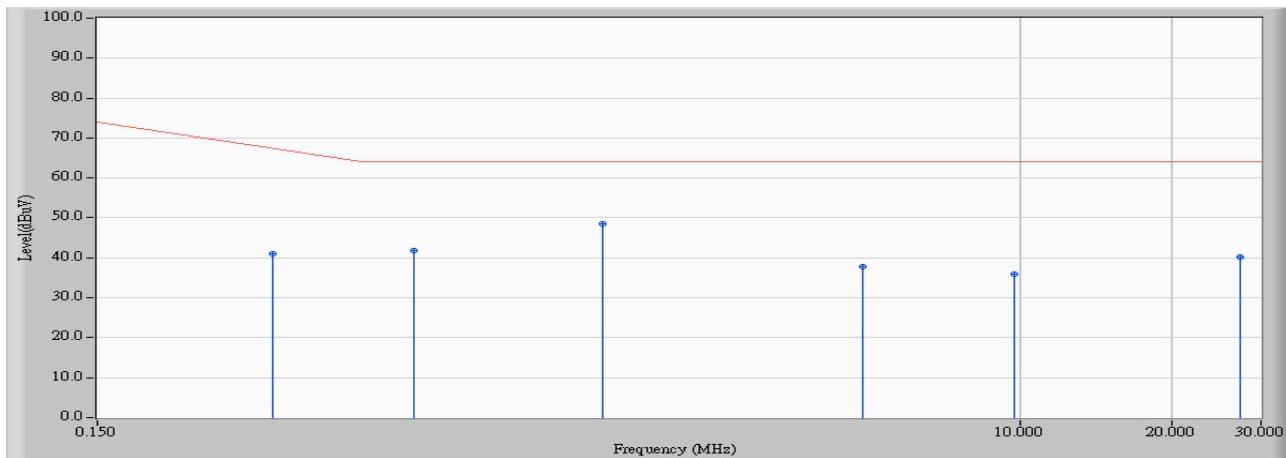


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.334 | 10.148 | 40.870 | 51.018 | -27.725 | 78.743 | QUASIPEAK |
| 2 | 0.634 | 10.090 | 44.250 | 54.340 | -19.660 | 74.000 | QUASIPEAK |
| 3 * | 1.494 | 10.040 | 47.280 | 57.320 | -16.680 | 74.000 | QUASIPEAK |
| 4 | 4.892 | 9.980 | 34.110 | 44.090 | -29.910 | 74.000 | QUASIPEAK |
| 5 | 9.787 | 9.990 | 31.190 | 41.180 | -32.820 | 74.000 | QUASIPEAK |
| 6 | 27.252 | 10.060 | 35.750 | 45.810 | -28.190 | 74.000 | QUASIPEAK |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------------|---------------------------|
| Site : SR-1 | Time : 2008/04/26 - 12:17 |
| Limit : ISN_Voltage_B_00M_AV | Margin : 0 |
| EUT : Notebook | Probe : ISN-T8 - Line1 |
| Power : AC 230V/50Hz | Note : Mode 3, 1G |



| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV) | Margin (dB) | Limit (dBuV) | Detector Type |
|-----|--------------------|------------------------|-------------------------|-------------------------|----------------|-----------------|---------------|
| 1 | 0.334 | 10.148 | 30.980 | 41.128 | -27.615 | 68.743 | AVERAGE |
| 2 | 0.634 | 10.090 | 31.830 | 41.920 | -22.080 | 64.000 | AVERAGE |
| 3 * | 1.494 | 10.040 | 38.530 | 48.570 | -15.430 | 64.000 | AVERAGE |
| 4 | 4.892 | 9.980 | 27.940 | 37.920 | -26.080 | 64.000 | AVERAGE |
| 5 | 9.787 | 9.990 | 25.850 | 35.840 | -28.160 | 64.000 | AVERAGE |
| 6 | 27.252 | 10.060 | 30.240 | 40.300 | -23.700 | 64.000 | AVERAGE |

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

4.7. Test Photograph

Test Mode : Mode 1:

Description : Front View of ISN Test



Test Mode : Mode 1:

Description : Back View of ISN Test



Test Mode : Mode 1:

Description : Front View of ISN Test - Telecom



Test Mode : Mode 1:

Description : Back View of ISN Test - Telecom



Test Mode : Mode 1:

Description : Front View of ISN Test - 1G



Test Mode : Mode 1:

Description : Back View of ISN Test - 1G



Test Mode : Mode 2:

Description : Front View of ISN Test



Test Mode : Mode 2:

Description : Back View of ISN Test



Test Mode : Mode 2:

Description : Front View of ISN Test - Telecom



Test Mode : Mode 2:

Description : Back View of ISN Test - Telecom



Test Mode : Mode 2:

Description : Front View of ISN Test - 1G



Test Mode : Mode 2:

Description : Back View of ISN Test - 1G



Test Mode : Mode 3:

Description : Front View of ISN Test



Test Mode : Mode 3:

Description : Back View of ISN Test



Test Mode : Mode 3:

Description : Front View of ISN Test - Telecom



Test Mode : Mode 3:

Description : Back View of ISN Test - Telecom



Test Mode : Mode 3:

Description : Front View of ISN Test - 1G



Test Mode : Mode 3:

Description : Back View of ISN Test - 1G

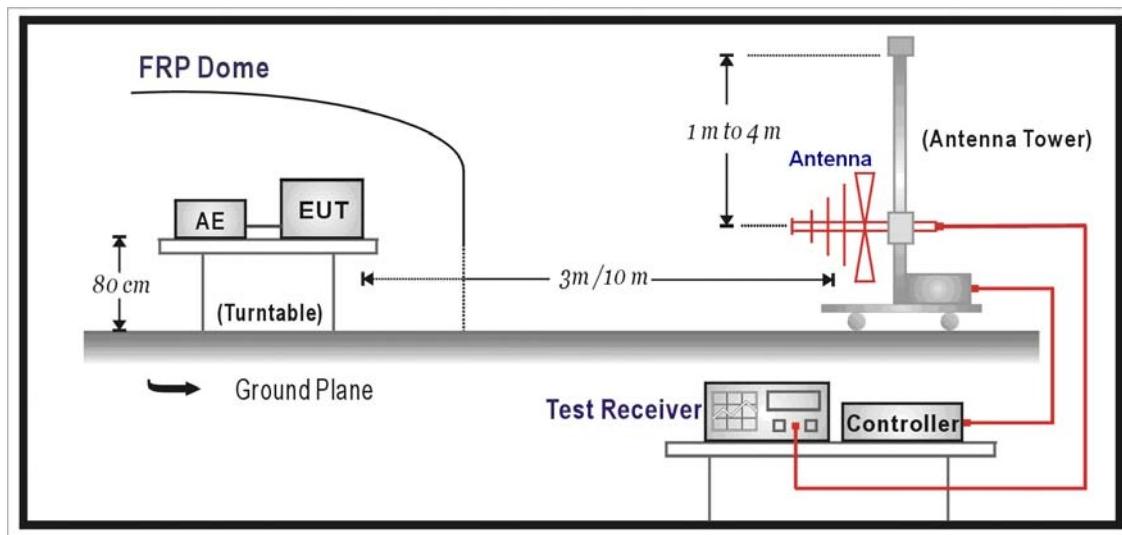


5. Radiated Emission

5.1. Test Specification

According to EMC Standard : EN 55022

5.2. Test Setup



5.3. Limit

| Limits | | |
|-----------------|--------------|--------|
| Frequency (MHz) | Distance (m) | dBuV/m |
| 30 – 230 | 10 | 30 |
| 230 – 1000 | 10 | 37 |

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

5.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 10 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

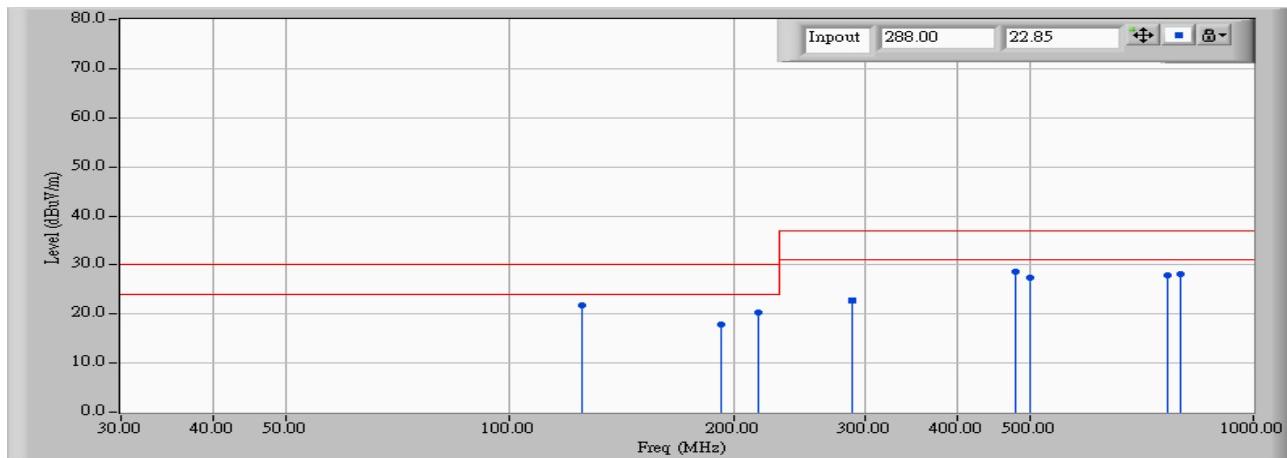
Radiated emissions were invested over the frequency range from 30MHz to1GHz using a receiver bandwidth of 120kHz. Radiated was performed at an antenna to EUT distance of 10 meters.

5.5. Deviation from Test Standard

No deviation.

5.6. Test Result

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/28 - 10:15 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site5(2921)_10M - HORIZONTAL |
| Power : AC 230V/50Hz | Note : Mode 1 |

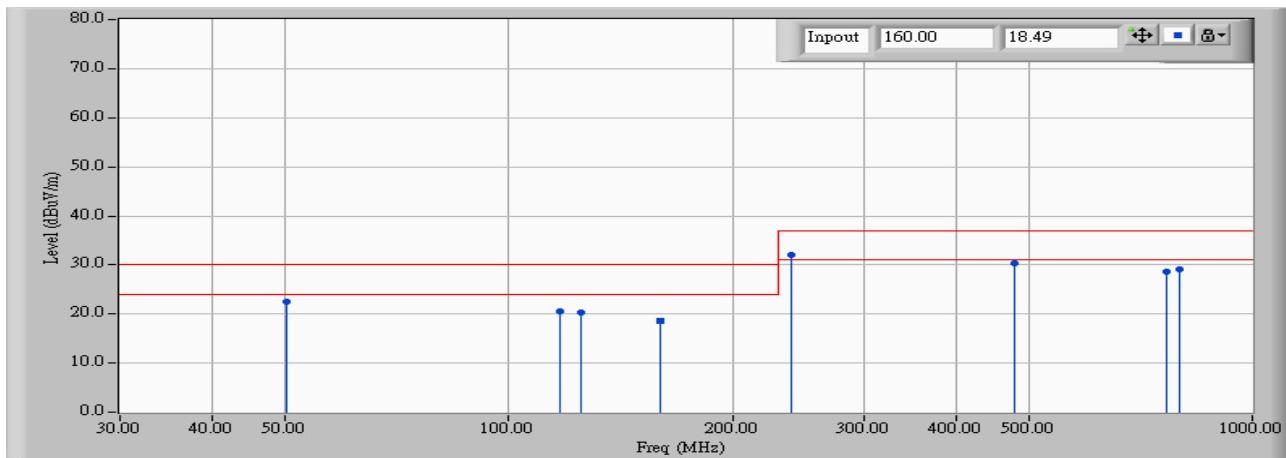


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|---------------------------|----------------|-------------------|---------------|
| 1 | * | 125.000 | 14.041 | 7.690 | 21.732 | -8.268 | 30.000 | QUASIPEAK |
| 2 | | 192.000 | 11.603 | 6.210 | 17.813 | -12.187 | 30.000 | QUASIPEAK |
| 3 | | 216.000 | 11.660 | 8.540 | 20.199 | -9.801 | 30.000 | QUASIPEAK |
| 4 | | 288.000 | 16.668 | 6.180 | 22.848 | -14.152 | 37.000 | QUASIPEAK |
| 5 | | 480.000 | 22.668 | 6.040 | 28.708 | -8.292 | 37.000 | QUASIPEAK |
| 6 | | 500.000 | 23.073 | 4.390 | 27.463 | -9.537 | 37.000 | QUASIPEAK |
| 7 | | 766.699 | 27.235 | 0.570 | 27.805 | -9.195 | 37.000 | QUASIPEAK |
| 8 | | 800.001 | 27.499 | 0.590 | 28.089 | -8.911 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/28 - 10:38 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site5(2921)_10M - VERTICAL |
| Power : AC 230V/50Hz | Note : Mode 1 |

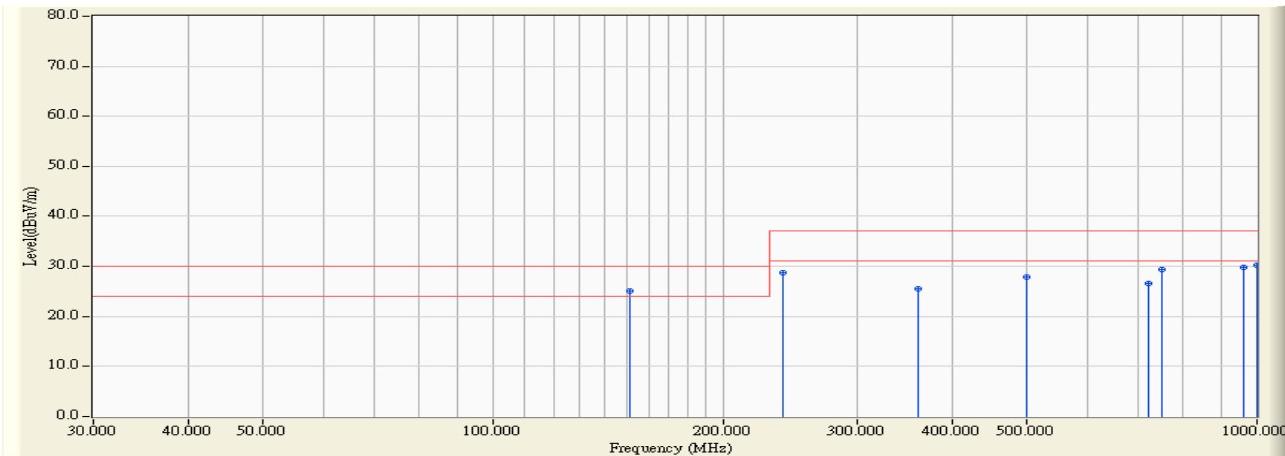


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 1 | 50.170 | 9.172 | 13.270 | 22.442 | -7.558 | 30.000 | QUASIPEAK |
| 2 | 116.910 | 13.801 | 6.800 | 20.601 | -9.399 | 30.000 | QUASIPEAK |
| 3 | 125.000 | 14.041 | 6.340 | 20.382 | -9.618 | 30.000 | QUASIPEAK |
| 4 | 160.000 | 12.401 | 6.090 | 18.491 | -11.509 | 30.000 | QUASIPEAK |
| 5 * | 240.000 | 14.342 | 17.670 | 32.012 | -4.988 | 37.000 | QUASIPEAK |
| 6 | 480.000 | 22.668 | 7.590 | 30.258 | -6.742 | 37.000 | QUASIPEAK |
| 7 | 766.170 | 27.230 | 1.420 | 28.650 | -8.350 | 37.000 | QUASIPEAK |
| 8 | 800.000 | 27.499 | 1.720 | 29.219 | -7.781 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/02 - 13:37 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site4(2921)_10M - HORIZONTAL |
| Power : AC 230V/50Hz | Note : Mode 2 |

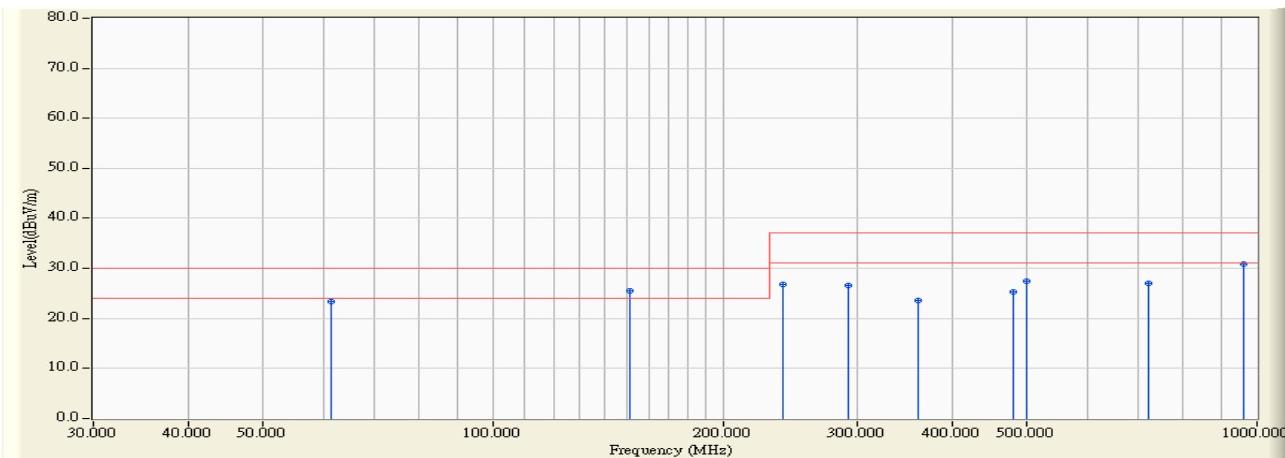


| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|---------------------------|----------------|-------------------|---------------|
| 1 | * | 150.990 | 13.724 | 11.360 | 25.083 | -4.917 | 30.000 | QUASIPEAK |
| 2 | | 240.000 | 15.385 | 13.250 | 28.635 | -8.365 | 37.000 | QUASIPEAK |
| 3 | | 360.011 | 19.136 | 6.370 | 25.507 | -11.493 | 37.000 | QUASIPEAK |
| 4 | | 500.007 | 22.081 | 5.860 | 27.941 | -9.059 | 37.000 | QUASIPEAK |
| 5 | | 720.023 | 25.420 | 1.250 | 26.670 | -10.330 | 37.000 | QUASIPEAK |
| 6 | | 750.010 | 25.780 | 3.680 | 29.460 | -7.540 | 37.000 | QUASIPEAK |
| 7 | | 960.037 | 29.044 | 0.860 | 29.904 | -7.096 | 37.000 | QUASIPEAK |
| 8 | | 1000.000 | 29.990 | 0.300 | 30.290 | -6.710 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/02 - 14:08 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site4(2921)_10M - VERTICAL |
| Power : AC 230V/50Hz | Note : Mode 2 |

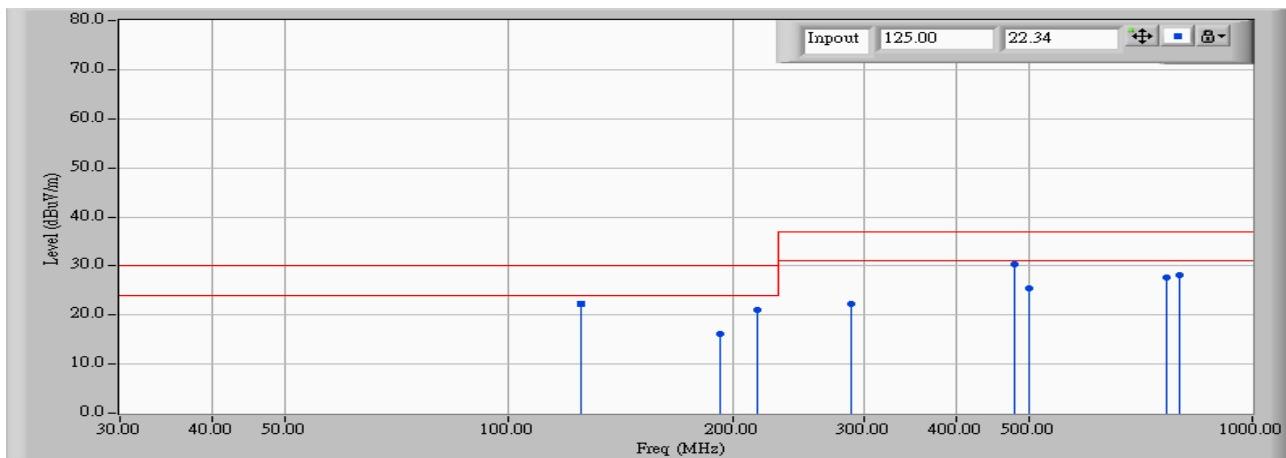


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|-----|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 1 | 61.500 | 7.857 | 15.600 | 23.457 | -6.543 | 30.000 | QUASIPEAK |
| 2 * | 150.990 | 13.724 | 11.700 | 25.423 | -4.577 | 30.000 | QUASIPEAK |
| 3 | 240.000 | 15.385 | 11.350 | 26.735 | -10.265 | 37.000 | QUASIPEAK |
| 4 | 291.602 | 17.227 | 9.340 | 26.567 | -10.433 | 37.000 | QUASIPEAK |
| 5 | 360.015 | 19.136 | 4.370 | 23.507 | -13.493 | 37.000 | QUASIPEAK |
| 6 | 480.016 | 21.718 | 3.670 | 25.388 | -11.612 | 37.000 | QUASIPEAK |
| 7 | 500.007 | 22.081 | 5.380 | 27.461 | -9.539 | 37.000 | QUASIPEAK |
| 8 | 720.000 | 25.420 | 1.520 | 26.940 | -10.060 | 37.000 | QUASIPEAK |
| 9 | 960.063 | 29.045 | 1.760 | 30.805 | -6.195 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/25 - 16:32 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site5(2921)_10M - HORIZONTAL |
| Power : AC 230V/50Hz | Note : Mode 3 |

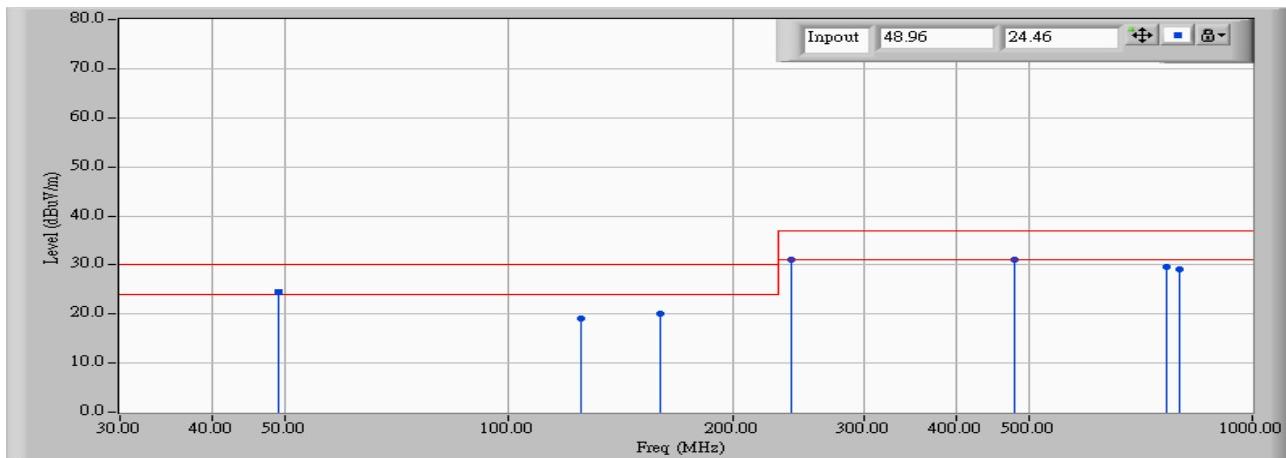


| | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|-----------------|---------------------|----------------------|------------------------|-------------|----------------|---------------|
| 1 | 125.000 | 14.041 | 8.300 | 22.342 | -7.658 | 30.000 | QUASIPEAK |
| 2 | 192.000 | 11.603 | 4.620 | 16.223 | -13.777 | 30.000 | QUASIPEAK |
| 3 | 216.000 | 11.660 | 9.300 | 20.959 | -9.041 | 30.000 | QUASIPEAK |
| 4 | 288.000 | 16.668 | 5.600 | 22.268 | -14.732 | 37.000 | QUASIPEAK |
| 5 | * 480.000 | 22.668 | 7.600 | 30.268 | -6.732 | 37.000 | QUASIPEAK |
| 6 | 500.003 | 23.073 | 2.390 | 25.463 | -11.537 | 37.000 | QUASIPEAK |
| 7 | 766.710 | 27.235 | 0.300 | 27.535 | -9.465 | 37.000 | QUASIPEAK |
| 8 | 800.051 | 27.499 | 0.650 | 28.149 | -8.851 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

| | |
|------------------------|---|
| Site : OATS-3 | Time : 2008/04/25 - 16:02 |
| Limit : CISPR_B_10M_QP | Margin : 6 |
| EUT : Notebook | Probe : 2007_Site5(2921)_10M - VERTICAL |
| Power : AC 230V/50Hz | Note : Mode 3 |



| | | Frequency (MHz) | Correct Factor (dB) | Reading Level (dBuV) | Measure Level (dBuV/m) | Margin (dB) | Limit (dBuV/m) | Detector Type |
|---|---|--------------------|------------------------|-------------------------|---------------------------|----------------|-------------------|---------------|
| 1 | * | 48.960 | 9.633 | 14.830 | 24.462 | -5.538 | 30.000 | QUASIPEAK |
| 2 | | 125.000 | 14.041 | 5.090 | 19.132 | -10.868 | 30.000 | QUASIPEAK |
| 3 | | 160.000 | 12.401 | 7.670 | 20.071 | -9.929 | 30.000 | QUASIPEAK |
| 4 | | 240.000 | 14.342 | 16.800 | 31.142 | -5.858 | 37.000 | QUASIPEAK |
| 5 | | 480.000 | 22.668 | 8.300 | 30.968 | -6.032 | 37.000 | QUASIPEAK |
| 6 | | 766.213 | 27.230 | 2.300 | 29.530 | -7.470 | 37.000 | QUASIPEAK |
| 7 | | 800.050 | 27.499 | 1.680 | 29.179 | -7.821 | 37.000 | QUASIPEAK |

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

5.7. Test Photograph

Test Mode : Mode 1:

Description : Front View of Radiated Test



Test Mode : Mode 1:

Description : Back View of Radiated Test



Test Mode : Mode 2:

Description : Front View of Radiated Test



Test Mode : Mode 2:

Description : Back View of Radiated Test



Test Mode : Mode 3:

Description : Front View of Radiated Test



Test Mode : Mode 3:

Description : Back View of Radiated Test

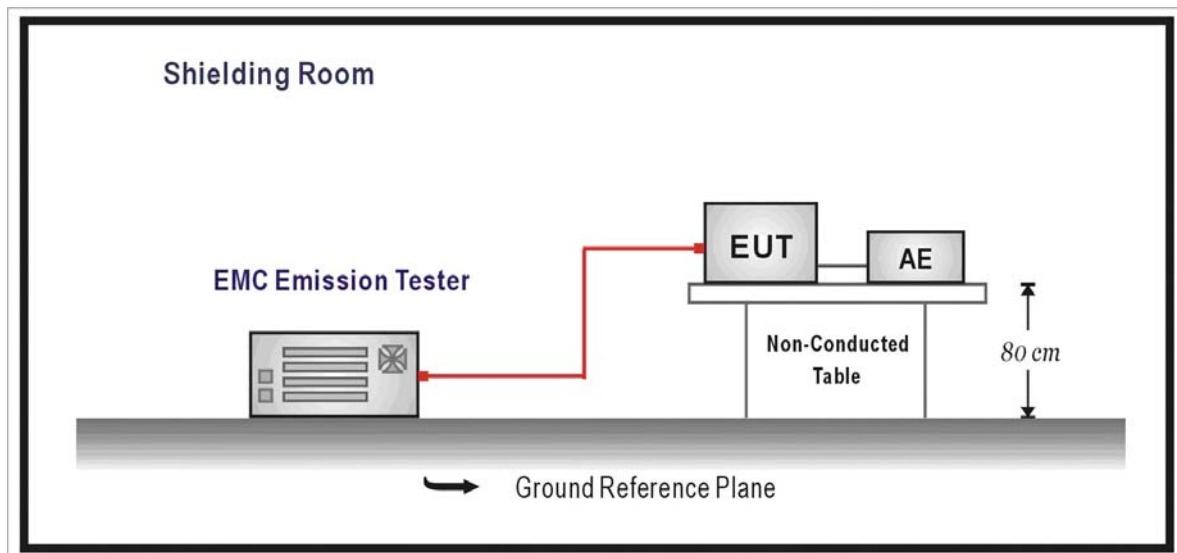


6. Harmonic Current Emission

6.1. Test Specification

According to EMC Standard : EN 61000-3-2

6.2. Test Setup



6.3. Limit

(a) Limits of Class A Harmonics Currents

| Harmonics Order n | Maximum Permissible harmonic current A | Harmonics Order n | Maximum Permissible harmonic current A |
|----------------------|---|----------------------|---|
| Odd harmonics | | Even harmonics | |
| 3 | 2.30 | 2 | 1.08 |
| 5 | 1.14 | 4 | 0.43 |
| 7 | 0.77 | 6 | 0.30 |
| 9 | 0.40 | $8 \leq n \leq 40$ | $0.23 * 8/n$ |
| 11 | 0.33 | | |
| 13 | 0.21 | | |
| $15 \leq n \leq 39$ | $0.15 * 15/n$ | | |

(b) Limits of Class B Harmonics Currents

For Class B equipment, the harmonic of the input current shall not exceed the maximum permissible values given in table that is the limit of Class A multiplied by a factor of 1.5.

(c) Limits of Class C Harmonics Currents

| Harmonics Order n | Maximum Permissible harmonic current Expressed as a percentage of the input current at the fundamental frequency % |
|---|---|
| 2 | 2 |
| 3 | $30 \cdot \lambda^*$ |
| 5 | 10 |
| 7 | 7 |
| 9 | 5 |
| $11 \leq n \leq 39$ (odd harmonics only) | 3 |

* λ is the circuit power factor

(d) Limits of Class D Harmonics Currents

| Harmonics Order n | Maximum Permissible harmonic current per watt mA/W | Maximum Permissible harmonic current A |
|---|--|--|
| 3 | 3.4 | 2.30 |
| 5 | 1.9 | 1.14 |
| 7 | 1.0 | 0.77 |
| 9 | 0.5 | 0.40 |
| 11 | 0.35 | 0.33 |
| $11 \leq n \leq 39$ (odd harmonics only) | $3.85/n$ | See limit of Class A |

6.4. Test Procedure

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.94 times and 1.06 times shall be performed.

6.5. Deviation from Test Standard

No deviation.

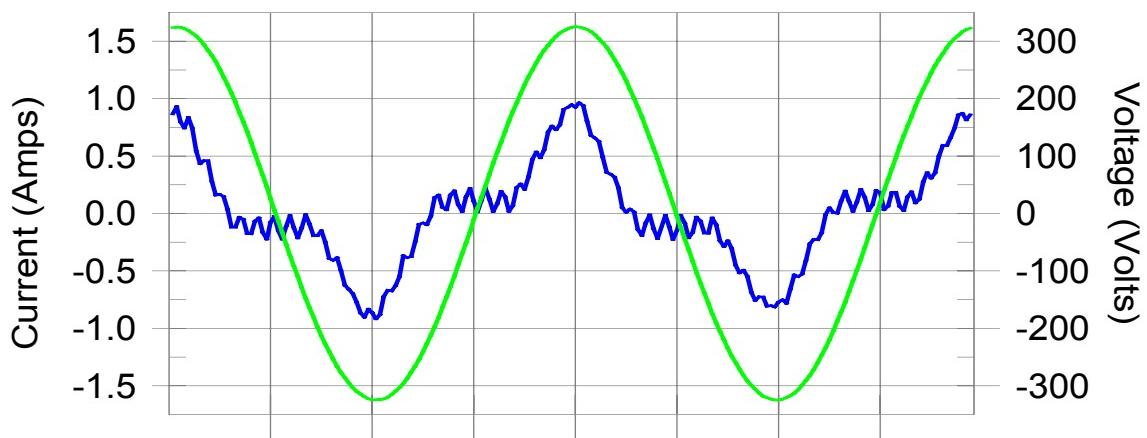
6.6. Test Result

| | | | |
|--------------|-----------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power Harmonics | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/07 | Test Site | No.3 Shielded Room |

Test Result: Pass

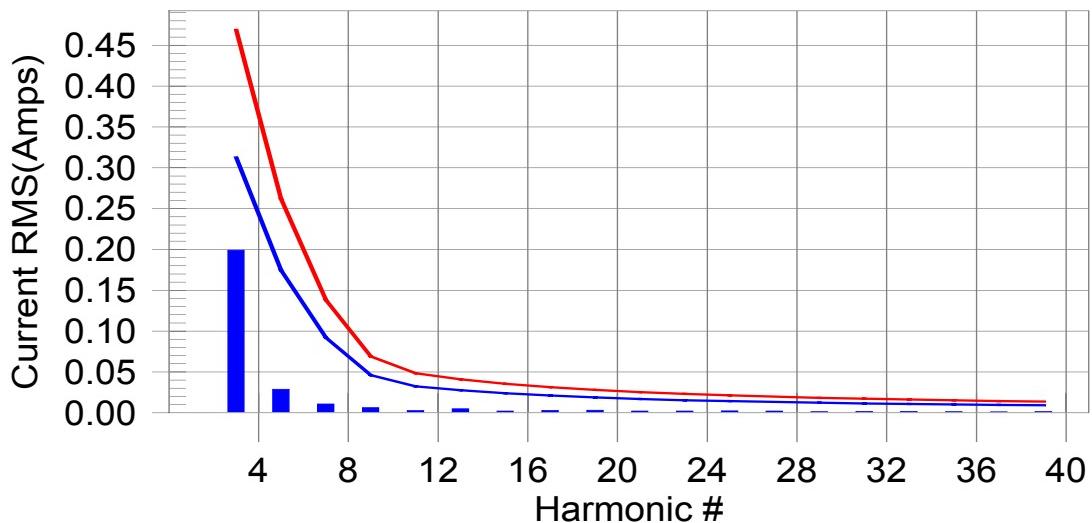
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class D limit line

European Limits



Test result: Pass

Worst harmonic was #3 with 42.45% of the limit.

Test Result: Pass

Source qualification: Normal

THC(A): 0.19

I-THD(%): 49.91

POHC(A): 0.003

POHC Limit(A): 0.040

Highest parameter values during test:

| | | | |
|----------------|--------|----------------|-------|
| V_RMS (Volts): | 229.79 | Frequency(Hz): | 50.00 |
| I_Peak (Amps): | 1.069 | I_RMS (Amps): | 0.464 |
| I_Fund (Amps): | 0.403 | Crest Factor: | 2.389 |
| Power (Watts): | 91.9 | Power Factor: | 0.863 |

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.000 | | | | | | |
| 3 | 0.190 | 0.313 | 60.8 | 0.199 | 0.469 | 42.45 | Pass |
| 4 | 0.000 | | | | | | |
| 5 | 0.027 | 0.175 | 15.5 | 0.029 | 0.262 | 10.95 | Pass |
| 6 | 0.000 | | | | | | |
| 7 | 0.010 | 0.092 | 10.6 | 0.011 | 0.138 | 7.84 | Pass |
| 8 | 0.000 | | | | | | |
| 9 | 0.005 | 0.046 | 10.2 | 0.006 | 0.069 | 9.09 | Pass |
| 10 | 0.000 | | | | | | |
| 11 | 0.001 | 0.032 | 4.5 | 0.003 | 0.048 | 5.77 | Pass |
| 12 | 0.000 | | | | | | |
| 13 | 0.004 | 0.028 | 14.7 | 0.005 | 0.041 | 12.02 | Pass |
| 14 | 0.000 | | | | | | |
| 15 | 0.001 | 0.024 | 4.3 | 0.002 | 0.035 | 5.89 | Pass |
| 16 | 0.000 | | | | | | |
| 17 | 0.001 | 0.021 | 6.6 | 0.003 | 0.031 | 9.26 | Pass |
| 18 | 0.000 | | | | | | |
| 19 | 0.002 | 0.019 | 8.8 | 0.003 | 0.028 | 11.02 | Pass |
| 20 | 0.000 | | | | | | |
| 21 | 0.001 | 0.017 | 5.8 | 0.002 | 0.025 | 8.10 | Pass |
| 22 | 0.000 | | | | | | |
| 23 | 0.001 | 0.015 | 5.8 | 0.002 | 0.023 | 9.68 | Pass |
| 24 | 0.000 | | | | | | |
| 25 | 0.001 | 0.014 | 9.1 | 0.002 | 0.021 | 10.74 | Pass |
| 26 | 0.000 | | | | | | |
| 27 | 0.001 | 0.013 | 8.2 | 0.002 | 0.020 | 10.13 | Pass |
| 28 | 0.000 | | | | | | |
| 29 | 0.001 | 0.012 | 5.1 | 0.001 | 0.018 | 7.54 | Pass |
| 30 | 0.000 | | | | | | |
| 31 | 0.001 | 0.011 | 6.5 | 0.002 | 0.017 | 10.06 | Pass |
| 32 | 0.000 | | | | | | |
| 33 | 0.001 | 0.011 | 7.2 | 0.002 | 0.016 | 9.94 | Pass |
| 34 | 0.000 | | | | | | |
| 35 | 0.001 | 0.010 | 6.1 | 0.001 | 0.015 | 9.22 | Pass |
| 36 | 0.000 | | | | | | |
| 37 | 0.000 | 0.010 | 5.1 | 0.001 | 0.014 | 7.99 | Pass |
| 38 | 0.000 | | | | | | |
| 39 | 0.001 | 0.009 | 6.6 | 0.001 | 0.014 | 10.41 | Pass |
| 40 | 0.000 | | | | | | |

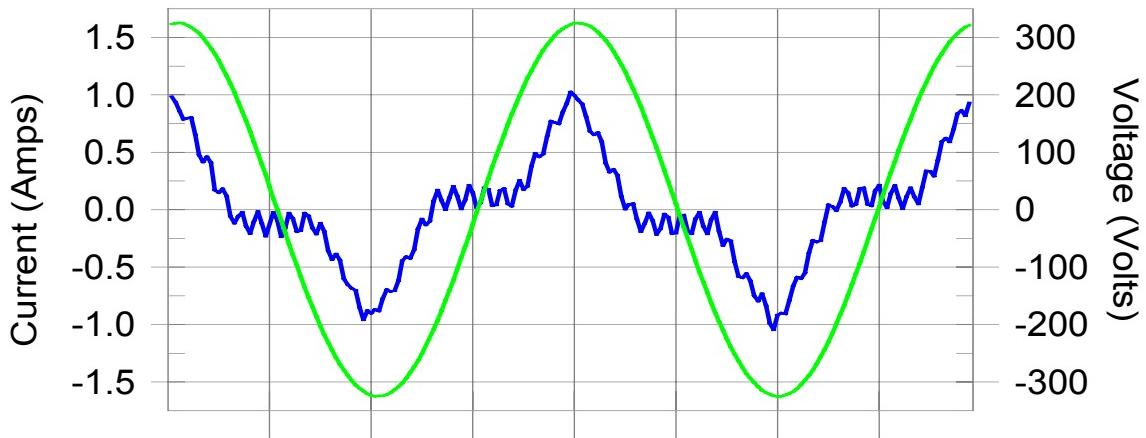
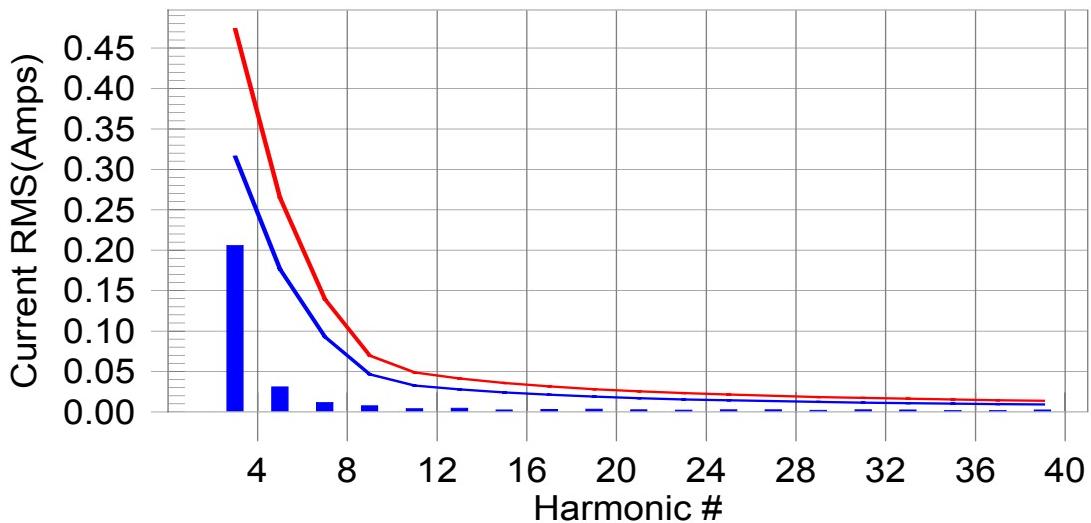
1.Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

2:According to EN61000-3-2 paragraph 7 the note 1 and 2 are valid for all applications having an active input power >75W. Others the result should be pass.

| | | | |
|--------------|-----------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power Harmonics | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/07 | Test Site | No.3 Shielded Room |

Test Result: Pass

Source qualification: Normal

Current & voltage waveformsHarmonics and Class D limit lineEuropean Limits

Test result: Pass

Worst harmonic was #3 with 43.52% of the limit.

Test Result: Pass

Source qualification: Normal

THC(A): 0.21

I-THD(%): 50.21

POHC(A): 0.004

POHC Limit(A): 0.040

Highest parameter values during test:

| | | | |
|----------------|--------|----------------|-------|
| V_RMS (Volts): | 229.79 | Frequency(Hz): | 50.00 |
| I_Peak (Amps): | 1.156 | I_RMS (Amps): | 0.470 |
| I_Fund (Amps): | 0.415 | Crest Factor: | 2.472 |
| Power (Watts): | 92.9 | Power Factor: | 0.862 |

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.000 | | | | | | |
| 3 | 0.203 | 0.316 | 64.3 | 0.206 | 0.474 | 43.52 | Pass |
| 4 | 0.000 | | | | | | |
| 5 | 0.029 | 0.176 | 16.6 | 0.031 | 0.265 | 11.70 | Pass |
| 6 | 0.000 | | | | | | |
| 7 | 0.010 | 0.093 | 11.1 | 0.012 | 0.139 | 8.47 | Pass |
| 8 | 0.000 | | | | | | |
| 9 | 0.006 | 0.046 | 13.4 | 0.008 | 0.070 | 10.92 | Pass |
| 10 | 0.000 | | | | | | |
| 11 | 0.003 | 0.033 | 8.7 | 0.004 | 0.049 | 8.27 | Pass |
| 12 | 0.000 | | | | | | |
| 13 | 0.004 | 0.028 | 13.5 | 0.005 | 0.041 | 11.66 | Pass |
| 14 | 0.000 | | | | | | |
| 15 | 0.001 | 0.024 | 5.2 | 0.002 | 0.036 | 6.79 | Pass |
| 16 | 0.000 | | | | | | |
| 17 | 0.002 | 0.021 | 8.2 | 0.003 | 0.032 | 10.22 | Pass |
| 18 | 0.000 | | | | | | |
| 19 | 0.002 | 0.019 | 10.5 | 0.004 | 0.028 | 12.54 | Pass |
| 20 | 0.000 | | | | | | |
| 21 | 0.001 | 0.017 | 8.4 | 0.003 | 0.026 | 10.63 | Pass |
| 22 | 0.000 | | | | | | |
| 23 | 0.001 | 0.016 | 7.9 | 0.002 | 0.023 | 10.32 | Pass |
| 24 | 0.000 | | | | | | |
| 25 | 0.001 | 0.014 | 9.6 | 0.003 | 0.021 | 12.05 | Pass |
| 26 | 0.000 | | | | | | |
| 27 | 0.001 | 0.013 | 9.8 | 0.003 | 0.020 | 13.14 | Pass |
| 28 | 0.000 | | | | | | |
| 29 | 0.001 | 0.012 | 8.1 | 0.002 | 0.018 | 12.21 | Pass |
| 30 | 0.000 | | | | | | |
| 31 | 0.001 | 0.012 | 9.3 | 0.003 | 0.017 | 14.87 | Pass |
| 32 | 0.000 | | | | | | |
| 33 | 0.001 | 0.011 | 9.9 | 0.002 | 0.016 | 15.24 | Pass |
| 34 | 0.000 | | | | | | |
| 35 | 0.001 | 0.010 | 9.1 | 0.002 | 0.015 | 12.63 | Pass |
| 36 | 0.000 | | | | | | |
| 37 | 0.001 | 0.010 | 9.6 | 0.002 | 0.014 | 13.55 | Pass |
| 38 | 0.000 | | | | | | |
| 39 | 0.001 | 0.009 | 12.3 | 0.002 | 0.014 | 17.80 | Pass |
| 40 | 0.000 | | | | | | |

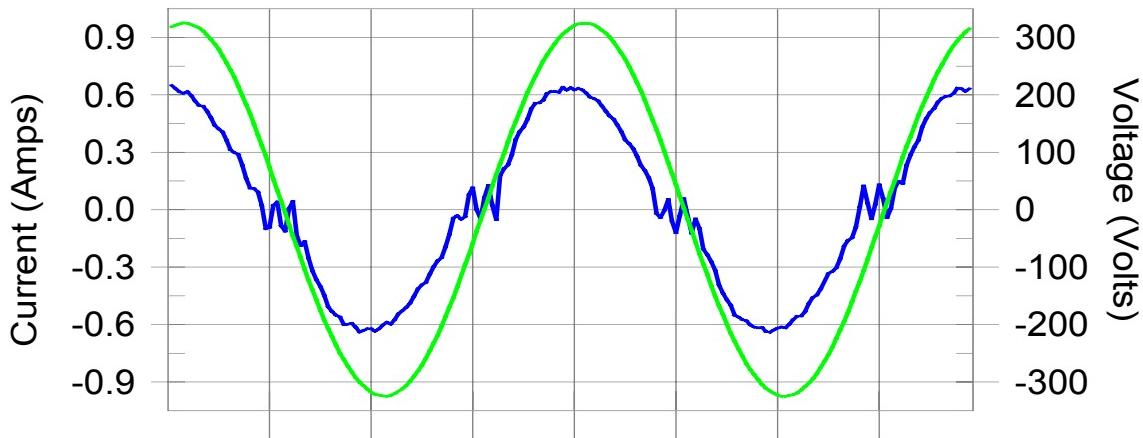
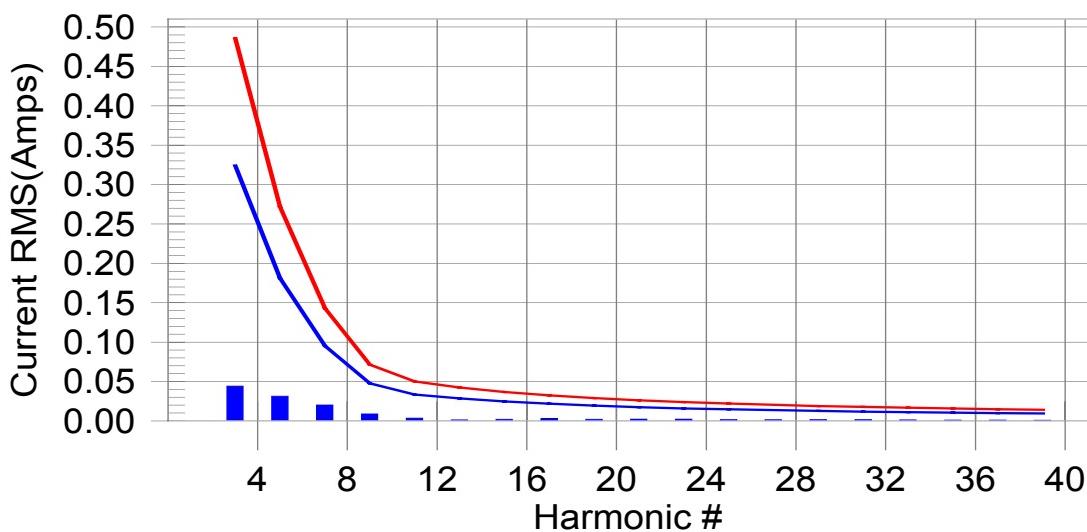
1.Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

2:According to EN61000-3-2 paragraph 7 the note 1 and 2 are valid for all applications having an active input power >75W. Others the result should be pass.

| | | | |
|--------------|-----------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power Harmonics | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/29 | Test Site | No.3 Shielded Room |

Test Result: Pass

Source qualification: Normal

Current & voltage waveformsHarmonics and Class D limit lineEuropean Limits

Test result: Pass

Worst harmonic was #7 with 14.15% of the limit.

Test Result: Pass

Source qualification: Normal

THC(A): 0.06

I-THD(%): 13.94

POHC(A): 0.005

POHC Limit(A): 0.041

Highest parameter values during test:

| | | | |
|----------------|--------|----------------|-------|
| V_RMS (Volts): | 229.70 | Frequency(Hz): | 50.00 |
| I_Peak (Amps): | 0.657 | I_RMS (Amps): | 0.428 |
| I_Fund (Amps): | 0.423 | Crest Factor: | 1.537 |
| Power (Watts): | 95.4 | Power Factor: | 0.970 |

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.000 | | | | | | |
| 3 | 0.044 | 0.324 | 13.5 | 0.044 | 0.486 | 9.10 | Pass |
| 4 | 0.000 | | | | | | |
| 5 | 0.031 | 0.181 | 17.2 | 0.032 | 0.272 | 11.62 | Pass |
| 6 | 0.000 | | | | | | |
| 7 | 0.020 | 0.095 | 20.9 | 0.020 | 0.143 | 14.15 | Pass |
| 8 | 0.000 | | | | | | |
| 9 | 0.009 | 0.048 | 18.2 | 0.009 | 0.071 | 12.39 | Pass |
| 10 | 0.000 | | | | | | |
| 11 | 0.004 | 0.033 | 10.6 | 0.004 | 0.050 | 7.29 | Pass |
| 12 | 0.000 | | | | | | |
| 13 | 0.001 | 0.029 | 4.5 | 0.001 | 0.042 | 3.23 | Pass |
| 14 | 0.000 | | | | | | |
| 15 | 0.002 | 0.025 | 8.8 | 0.002 | 0.037 | 6.16 | Pass |
| 16 | 0.000 | | | | | | |
| 17 | 0.003 | 0.022 | 11.6 | 0.003 | 0.032 | 8.29 | Pass |
| 18 | 0.000 | | | | | | |
| 19 | 0.002 | 0.019 | 11.3 | 0.002 | 0.029 | 7.84 | Pass |
| 20 | 0.000 | | | | | | |
| 21 | 0.002 | 0.017 | 13.1 | 0.002 | 0.026 | 9.26 | Pass |
| 22 | 0.000 | | | | | | |
| 23 | 0.002 | 0.016 | 13.4 | 0.002 | 0.024 | 10.08 | Pass |
| 24 | 0.000 | | | | | | |
| 25 | 0.001 | 0.015 | 8.7 | 0.002 | 0.022 | 7.32 | Pass |
| 26 | 0.000 | | | | | | |
| 27 | 0.001 | 0.014 | 9.4 | 0.002 | 0.020 | 7.85 | Pass |
| 28 | 0.000 | | | | | | |
| 29 | 0.001 | 0.013 | 11.4 | 0.002 | 0.019 | 8.70 | Pass |
| 30 | 0.000 | | | | | | |
| 31 | 0.001 | 0.012 | 12.3 | 0.002 | 0.018 | 9.28 | Pass |
| 32 | 0.000 | | | | | | |
| 33 | 0.001 | 0.011 | 11.3 | 0.001 | 0.017 | 7.93 | Pass |
| 34 | 0.000 | | | | | | |
| 35 | 0.001 | 0.010 | 11.3 | 0.001 | 0.016 | 7.90 | Pass |
| 36 | 0.000 | | | | | | |
| 37 | 0.001 | 0.010 | 10.8 | 0.001 | 0.015 | 7.67 | Pass |
| 38 | 0.000 | | | | | | |
| 39 | 0.001 | 0.009 | 9.9 | 0.001 | 0.014 | 7.21 | Pass |
| 40 | 0.000 | | | | | | |

1.Dynamic limits were applied for this test. The highest harmonics values in the above table may not occur at the same window as the maximum harmonics/limit ratio.

2:According to EN61000-3-2 paragraph 7 the note 1 and 2 are valid for all applications having an active input power >75W. Others the result should be pass.

6.7. Test Photograph

Test Mode : Mode 1:

Description : Power Harmonics Test Setup



Test Mode : Mode 2:

Description : Power Harmonics Test Setup



Test Mode : Mode 3:

Description : Power Harmonics Test Setup

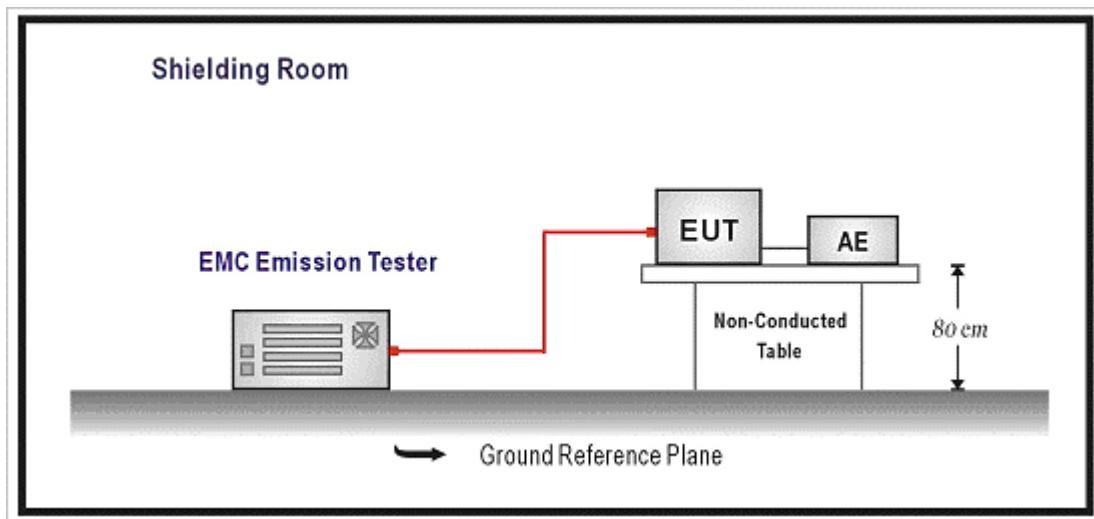


7. Voltage Fluctuation and Flicker

7.1. Test Specification

According to EMC Standard : EN 61000-3-3

7.2. Test Setup



7.3. Limit

The following limits apply:

- the value of P_{st} shall not be greater than 1.0;
- the value of P_{1t} shall not be greater than 0.65;
- the value of $d(t)$ during a voltage change shall not exceed 3.3 % for more than 500 ms;
- the relative steady-state voltage change, d_c , shall not exceed 3.3 %;
- the maximum relative voltage change, d_{max} , shall not exceed:
 - a) 4 % without additional conditions;
 - b) 6 % for equipment which is:
 - switched manually, or
 - switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption.

NOTE The cycling frequency will be further limited by the P_{st} and P_{1t} limit.

For example: a d_{max} of 6% producing a rectangular voltage change characteristic twice per hour will give a P_{1t} of about 0.65.

- c) 7 % for equipment which is:
- attended whilst in use (for example: hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as lawn mowers, portable tools such as electric drills), or
 - switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.

P_{st} and P_{1t} requirements shall not be applied to voltage changes caused by manual switching.

7.4. Test Procedure

The EUT is supplied in series with power analyzer from a power source having the same normal voltage and frequency as the rated supply voltage and the equipment under test. And the rated voltage at the supply voltage of EUT of 0.94 times and 1.06 times shall be performed.

7.5. Deviation from Test Standard

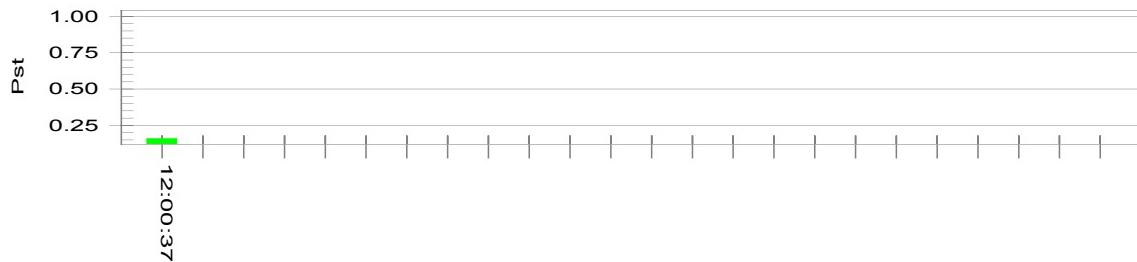
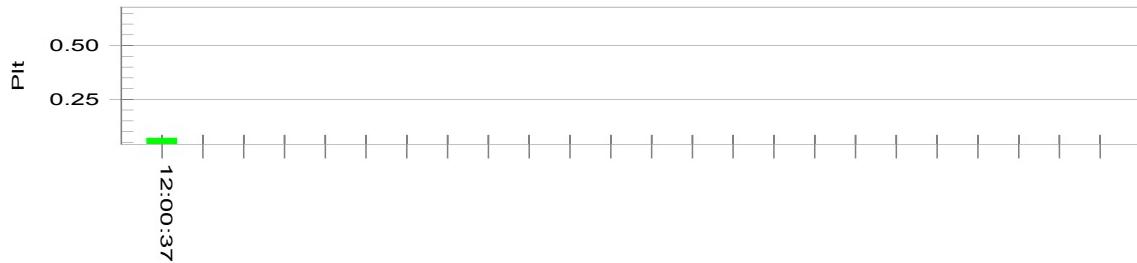
No deviation.

7.6. Test Result

| | | | |
|--------------|---------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Voltage Fluctuation and Flicker | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/07 | Test Site | No.3 Shielded Room |

Test Result: Pass

Status: Test Completed

Pst and limit lineEuropean LimitsPlt and limit line

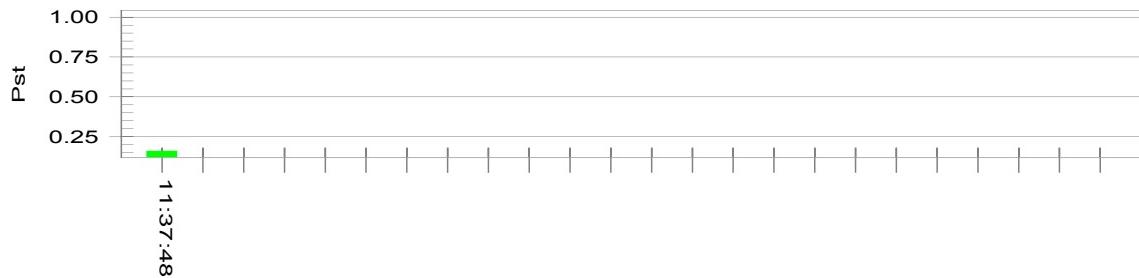
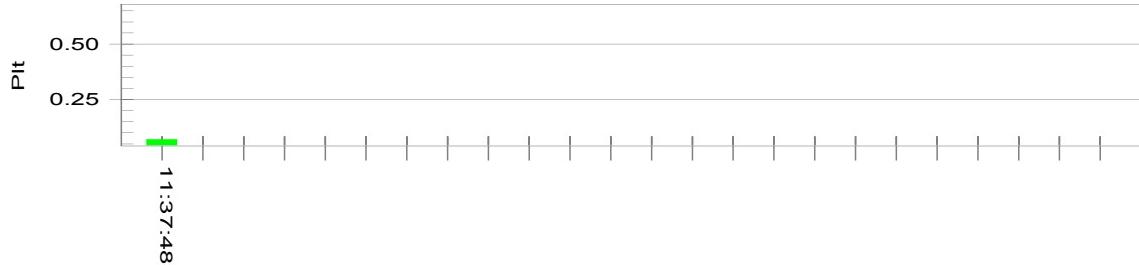
Parameter values recorded during the test:

| | | | | |
|---------------------------------|--------|------------------|-------|------|
| Vrms at the end of test (Volt): | 229.65 | Test limit (%): | 3.30 | Pass |
| Highest dt (%): | 0.00 | Test limit (mS): | 500.0 | Pass |
| Time(mS) > dt: | 0.0 | Test limit (%): | 3.30 | Pass |
| Highest dc (%): | 0.00 | Test limit (%): | 4.00 | Pass |
| Highest dmax (%): | 0.00 | Test limit: | 1.000 | Pass |
| Highest Pst (10 min. period): | 0.160 | Test limit: | 0.650 | Pass |
| Highest Plt (2 hr. period): | 0.070 | | | |

| | | | |
|--------------|---------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Voltage Fluctuation and Flicker | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/07 | Test Site | No.3 Shielded Room |

Test Result: Pass

Status: Test Completed

Pst and limit lineEuropean LimitsPlt and limit line

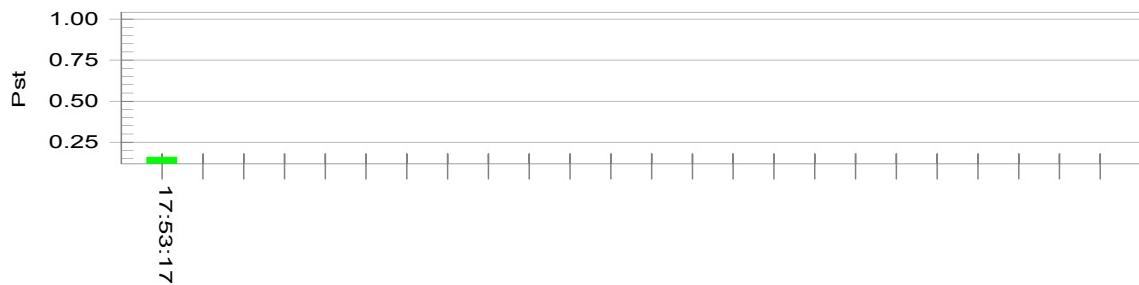
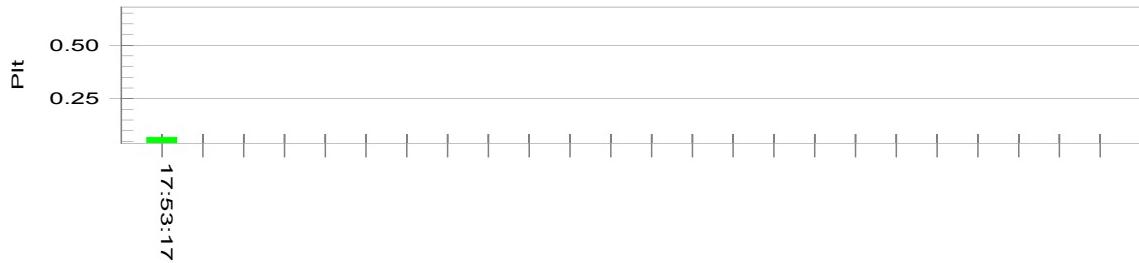
Parameter values recorded during the test:

| | | | | |
|---------------------------------|--------|------------------|-------|------|
| Vrms at the end of test (Volt): | 229.61 | Test limit (%): | 3.30 | Pass |
| Highest dt (%): | 0.00 | Test limit (mS): | 500.0 | Pass |
| Time(mS) > dt: | 0.0 | Test limit (%): | 3.30 | Pass |
| Highest dc (%): | 0.00 | Test limit (%): | 4.00 | Pass |
| Highest dmax (%): | 0.00 | Test limit: | 1.000 | Pass |
| Highest Pst (10 min. period): | 0.160 | Test limit: | 0.650 | Pass |
| Highest Plt (2 hr. period): | 0.070 | | | |

| | | | |
|--------------|---------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Voltage Fluctuation and Flicker | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/29 | Test Site | No.3 Shielded Room |

Test Result: Pass

Status: Test Completed

Pst and limit lineEuropean LimitsPlt and limit line

Parameter values recorded during the test:

| | | | | |
|---------------------------------|--------|------------------|-------|------|
| Vrms at the end of test (Volt): | 229.53 | Test limit (%): | 3.30 | Pass |
| Highest dt (%): | 0.00 | Test limit (mS): | 500.0 | Pass |
| Time(mS) > dt: | 0.0 | Test limit (%): | 3.30 | Pass |
| Highest dc (%): | 0.00 | Test limit (%): | 4.00 | Pass |
| Highest dmax (%): | 0.00 | Test limit: | 1.000 | Pass |
| Highest Pst (10 min. period): | 0.160 | Test limit: | 0.650 | Pass |
| Highest Plt (2 hr. period): | 0.070 | | | |

7.7. Test Photograph

Test Mode : Mode 1:

Description : Flicker Test Setup



Test Mode : Mode 2:

Description : Flicker Test Setup



Test Mode : Mode 3:

Description : Flicker Test Setup

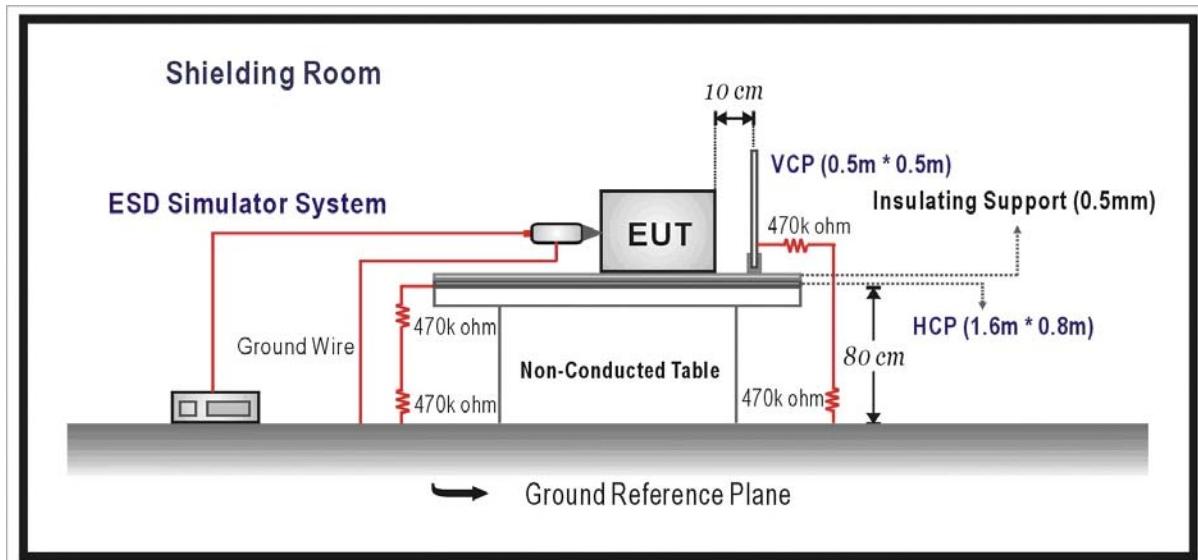


8. Electrostatic Discharge

8.1. Test Specification

According to Standard : IEC 61000-4-2

8.2. Test Setup



8.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|----------------|-------------------------|--------------------|--|----------------------|
| Enclosure Port | | | | |
| | Electrostatic Discharge | kV(Charge Voltage) | ±8 Air Discharge ±4 Contact Discharge | B |

8.4. Test Procedure

Direct application of discharges to the EUT:

Contact discharge was applied only to conductive surfaces of the EUT.

Air discharges were applied only to non-conductive surfaces of the EUT.

During the test, it was performed with single discharges. For the single discharge time between successive single discharges will be kept longer 1 second. It was at least ten single discharges with positive and negative at the same selected point.

The selected point, which was performed with electrostatic discharge, was marked on the red label of the EUT.

Indirect application of discharges to the EUT:

Vertical Coupling Plane (VCP):

The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten single discharges with positive and negative at the same selected point.

Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane.

The four faces of the EUT will be performed with electrostatic discharge. It was at least ten single discharges with positive and negative at the same selected point.

8.5. Deviation from Test Standard

No deviation.

8.6. Test Result

| | | | |
|--------------|-------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Electrostatic Discharge | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/08 | Test Site | No.6 Shielded Room |

| Item | Amount of Discharge | Voltage | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------------------|---------------------|---------|-------------------|------------------------------|---------|
| Air Discharge | 10 | +8kV | B | B | Pass |
| | 10 | -8kV | B | B | Pass |
| Contact Discharge | 25 | +4kV | B | A | Pass |
| | 25 | -4kV | B | A | Pass |
| Indirect Discharge (HCP) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Front) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Left) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Back) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Right) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

NR: No Requirement

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at ____ kV.
 - No false alarms or other malfunctions were observed during or after the test.

Remark:

The Contact discharges were applied at least total 200 discharges at a minimum of four test points.

| | | | | |
|--------------|-------------------------|-----------|--|--------------------|
| Product | Notebook | | | |
| Test Item | Electrostatic Discharge | | | |
| Test Mode | Mode 2: | | | |
| Date of Test | 2008/04/08 | Test Site | | No.6 Shielded Room |

| Item | Amount of Discharge | Voltage | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------------------|---------------------|---------|-------------------|------------------------------|---------|
| Air Discharge | 10 | +8kV | B | B | Pass |
| | 10 | -8kV | B | B | Pass |
| Contact Discharge | 25 | +4kV | B | A | Pass |
| | 25 | -4kV | B | A | Pass |
| Indirect Discharge (HCP) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Front) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Left) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Back) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Right) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

NR: No Requirement

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at ____ kV.
 - No false alarms or other malfunctions were observed during or after the test.

Remark:

The Contact discharges were applied at least total 200 discharges at a minimum of four test points.

| | | | |
|--------------|-------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Electrostatic Discharge | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/05/01 | Test Site | No.6 Shielded Room |

| Item | Amount of Discharge | Voltage | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------------------|---------------------|---------|-------------------|------------------------------|---------|
| Air Discharge | 10 | +8kV | B | B | Pass |
| | 10 | -8kV | B | B | Pass |
| Contact Discharge | 25 | +4kV | B | A | Pass |
| | 25 | -4kV | B | A | Pass |
| Indirect Discharge (HCP) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Front) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Left) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Back) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |
| Indirect Discharge (VCP Right) | 50 | +4kV | B | A | Pass |
| | 50 | -4kV | B | A | Pass |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

NR: No Requirement

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at ____ kV.
 - No false alarms or other malfunctions were observed during or after the test.

Remark:

The Contact discharges were applied at least total 200 discharges at a minimum of four test points.

8.7. Test Photograph

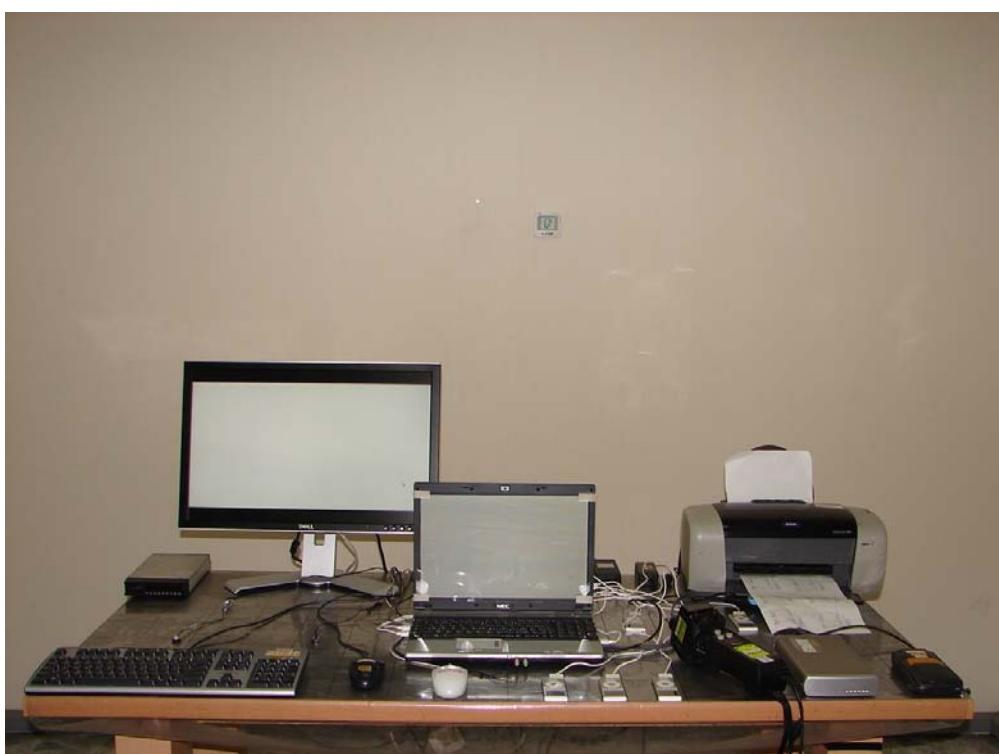
Test Mode : Mode 1:

Description : ESD Test Setup



Test Mode : Mode 2:

Description : ESD Test Setup



Test Mode : Mode 3:

Description : ESD Test Setup

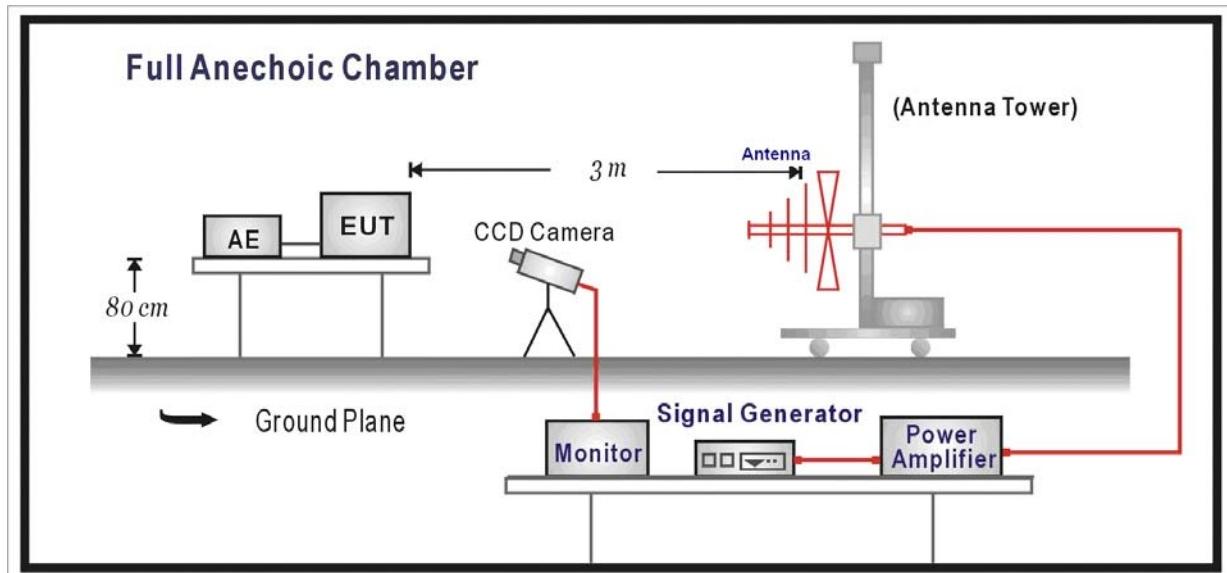


9. Radiated Susceptibility

9.1. Test Specification

According to Standard : IEC 61000-4-3

9.2. Test Setup



9.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|----------------|---|--|--------------------|----------------------|
| Enclosure Port | | | | |
| | Radio-Frequency Electromagnetic Field Amplitude Modulated | MHz V/m(Un-modulated, rms) % AM (1kHz) | 80-1000 3 80 | A |

9.4. Test Procedure

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters.

Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

In order to judge the EUT performance, a CCD camera is used to monitor EUT screen.

All the scanning conditions are as follows:

| Condition of Test | Remarks |
|-------------------------------------|--------------------------------|
| 1. Field Strength | 3 V/m Level 2 |
| 2. Radiated Signal | AM 80% Modulated with 1kHz |
| 3. Scanning Frequency | 80MHz - 1000MHz |
| 4. Dwell Time | 3 Seconds |
| 5. Frequency step size Δf : | 1% |
| 6. The rate of Swept of Frequency | 1.5×10^{-3} decades/s |

9.5. Deviation from Test Standard

No deviation.

9.6. Test Result

| | | | |
|--------------|-------------------------|-----------|----------|
| Product | Notebook | | |
| Test Item | Radiated susceptibility | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/07 | Test Site | Chamber5 |

| Frequency (MHz) | Position (Angle) | Polarity (H or V) | Field Strength (V/m) | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------|---------------------|----------------------|----------------------------|----------------------|------------------------------------|---------|
| 80-1000 | FRONT | H | 3 | A | A | PASS |
| 80-1000 | FRONT | V | 3 | A | A | PASS |
| 80-1000 | BACK | H | 3 | A | A | PASS |
| 80-1000 | BACK | V | 3 | A | A | PASS |
| 80-1000 | RIGHT | H | 3 | A | A | PASS |
| 80-1000 | RIGHT | V | 3 | A | A | PASS |
| 80-1000 | LEFT | H | 3 | A | A | PASS |
| 80-1000 | LEFT | V | 3 | A | A | PASS |
| 80-1000 | UP | H | 3 | A | A | PASS |
| 80-1000 | UP | V | 3 | A | A | PASS |
| 80-1000 | DOWN | H | 3 | A | A | PASS |
| 80-1000 | DOWN | V | 3 | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - There was no observable degradation in performance.
 - EUT stopped operation and could / could not be reset by operator at _____ V/m at frequency _____ MHz.
- No false alarms or other malfunctions were observed during or after the test.

| | | | |
|--------------|-------------------------|-----------|----------|
| Product | Notebook | | |
| Test Item | Radiated susceptibility | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/07 | Test Site | Chamber5 |

| Frequency (MHz) | Position (Angle) | Polarity (H or V) | Field Strength (V/m) | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------|---------------------|----------------------|----------------------------|----------------------|------------------------------------|---------|
| 80-1000 | FRONT | H | 3 | A | A | PASS |
| 80-1000 | FRONT | V | 3 | A | A | PASS |
| 80-1000 | BACK | H | 3 | A | A | PASS |
| 80-1000 | BACK | V | 3 | A | A | PASS |
| 80-1000 | RIGHT | H | 3 | A | A | PASS |
| 80-1000 | RIGHT | V | 3 | A | A | PASS |
| 80-1000 | LEFT | H | 3 | A | A | PASS |
| 80-1000 | LEFT | V | 3 | A | A | PASS |
| 80-1000 | UP | H | 3 | A | A | PASS |
| 80-1000 | UP | V | 3 | A | A | PASS |
| 80-1000 | DOWN | H | 3 | A | A | PASS |
| 80-1000 | DOWN | V | 3 | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - There was no observable degradation in performance.
 - EUT stopped operation and could / could not be reset by operator at _____ V/m at frequency _____ MHz.
- No false alarms or other malfunctions were observed during or after the test.

| | | | |
|--------------|-------------------------|-----------|----------|
| Product | Notebook | | |
| Test Item | Radiated susceptibility | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/30 | Test Site | Chamber5 |

| Frequency (MHz) | Position (Angle) | Polarity (H or V) | Field Strength (V/m) | Required Criteria | Complied To Criteria (A,B,C) | Results |
|--------------------|---------------------|----------------------|----------------------------|----------------------|------------------------------------|---------|
| 80-1000 | FRONT | H | 3 | A | A | PASS |
| 80-1000 | FRONT | V | 3 | A | A | PASS |
| 80-1000 | BACK | H | 3 | A | A | PASS |
| 80-1000 | BACK | V | 3 | A | A | PASS |
| 80-1000 | RIGHT | H | 3 | A | A | PASS |
| 80-1000 | RIGHT | V | 3 | A | A | PASS |
| 80-1000 | LEFT | H | 3 | A | A | PASS |
| 80-1000 | LEFT | V | 3 | A | A | PASS |
| 80-1000 | UP | H | 3 | A | A | PASS |
| 80-1000 | UP | V | 3 | A | A | PASS |
| 80-1000 | DOWN | H | 3 | A | A | PASS |
| 80-1000 | DOWN | V | 3 | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - There was no observable degradation in performance.
 - EUT stopped operation and could / could not be reset by operator at _____ V/m at frequency _____ MHz.
- No false alarms or other malfunctions were observed during or after the test.

9.7. Test Photograph

Test Mode : Mode 1:

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 2:

Description : Radiated Susceptibility Test Setup



Test Mode : Mode 3:

Description : Radiated Susceptibility Test Setup

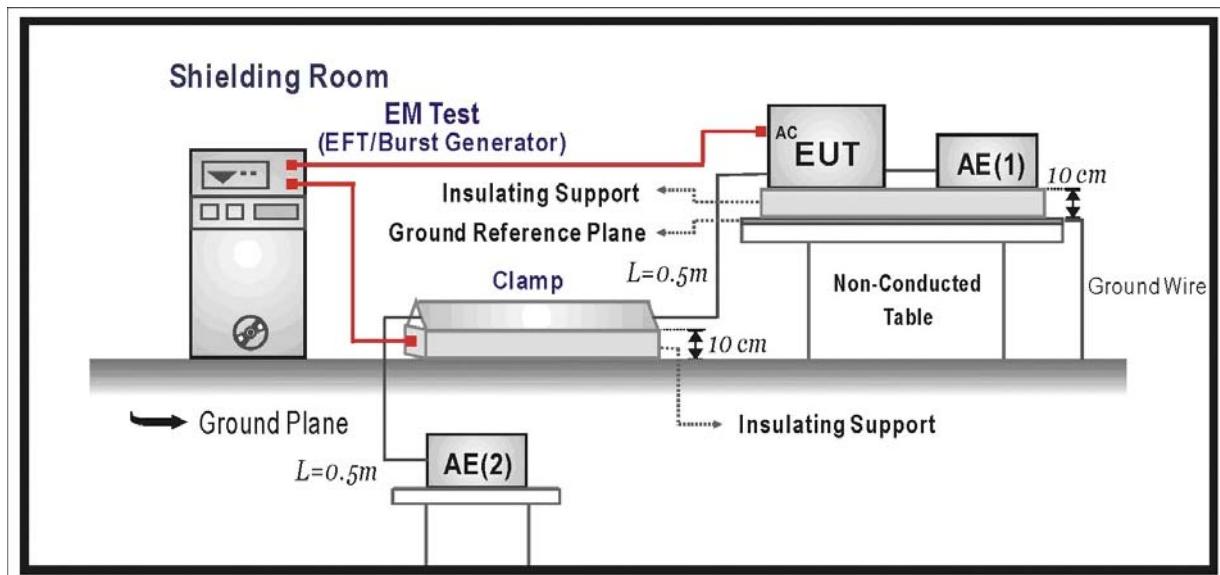


10. Electrical Fast Transient/Burst

10.1. Test Specification

According to Standard : IEC 61000-4-4

10.2. Test Setup



10.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|------------------------------------|-----------------------------|---|--------------------|----------------------|
| I/O and communication ports | | | | |
| | Fast Transients Common Mode | kV (Peak) Tr/Th ns Rep. Frequency kHz | +0.5 5/50 5 | B |
| Input DC Power Ports | | | | |
| | Fast Transients Common Mode | kV (Peak) Tr/Th ns Rep. Frequency kHz | +0.5 5/50 5 | B |
| Input AC Power Ports | | | | |
| | Fast Transients Common Mode | kV (Peak) Tr/Th ns Rep. Frequency kHz | +1 5/50 5 | B |

10.4. Test Procedure

The EUT is placed on a table that is 0.8 meter height. A ground reference plane is placed on the table, and uses a 0.1m insulation between the EUT and ground reference plane.

The minimum area of the ground reference plane is 1m*1m, and 0.65mm thick min, and projected beyond the EUT by at least 0.1m on all sides.

Test on I/O and communication ports:

The EFT interference signal is through a coupling clamp device couples to the signal and control lines of the EUT with burst noise for 1 minute.

Test on power supply ports:

The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal.

Each of the Line and Neutral conductors is impressed with burst noise for 1 minute.

The length of the signal and power lines between the coupling device and the EUT is 0.5m.

10.5. Deviation from Test Standard

No deviation.

10.6. Test Result

| | | | | | | |
|--------------|---------------------------------|-----------|--|--------------------|--|--|
| Product | Notebook | | | | | |
| Test Item | Electrical fast transient/burst | | | | | |
| Test Mode | Mode 1: | | | | | |
| Date of Test | 2008/04/08 | Test Site | | No.6 Shielded Room | | |

| Inject Line | Polarity | Voltage kV | Inject Time (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|------------|----------------------|---------------|-------------------|----------------------|--------|
| L+N | ± | 1kV | 60 | Direct | B | A | PASS |
| L+N+PE | ± | 1kV | 60 | Direct | B | A | PASS |
| LAN1 | ± | 0.5 kV | 90 | Clamp | B | A | PASS |
| LAN2 | ± | 0.5 kV | 90 | Clamp | B | A | PASS |
| Telecom | ± | 0.5 kV | 90 | Clamp | B | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

| | | | | | | |
|--------------|---------------------------------|-----------|--|--------------------|--|--|
| Product | Notebook | | | | | |
| Test Item | Electrical fast transient/burst | | | | | |
| Test Mode | Mode 2: | | | | | |
| Date of Test | 2008/04/08 | Test Site | | No.6 Shielded Room | | |

| Inject Line | Polarity | Voltage kV | Inject Time (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|------------|----------------------|---------------|-------------------|----------------------|--------|
| L+N | ± | 1kV | 60 | Direct | B | A | PASS |
| L+N+PE | ± | 1kV | 60 | Direct | B | A | PASS |
| LAN1 | ± | 0.5 kV | 90 | Clamp | B | A | PASS |
| LAN2 | ± | 0.5 kV | 90 | Clamp | B | A | PASS |
| Telecom | ± | 0.5 kV | 90 | Clamp | B | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

| | | | |
|--------------|---------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Electrical fast transient/burst | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/30 | Test Site | No.6 Shielded Room |

| Inject Line | Polarity | Voltage kV | Inject Time (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|------------|----------------------|---------------|-------------------|----------------------|--------|
| L+N | ± | 1kV | 60 | Direct | B | B | PASS |
| L+N+PE | ± | 1kV | 60 | Direct | B | B | PASS |
| Telecom | ± | 0.5 kV | 90 | Clamp | B | B | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

10.7. Test Photograph

Test Mode : Mode 1:

Description : EFT/B Test Setup



Test Mode : Mode 1:

Description : EFT/B Test Setup-Clamp



Test Mode : Mode 2:

Description : EFT/B Test Setup



Test Mode : Mode 2:

Description : EFT/B Test Setup-Clamp



Test Mode : Mode 3:

Description : EFT/B Test Setup



Test Mode : Mode 3:

Description : EFT/B Test Setup-Clamp

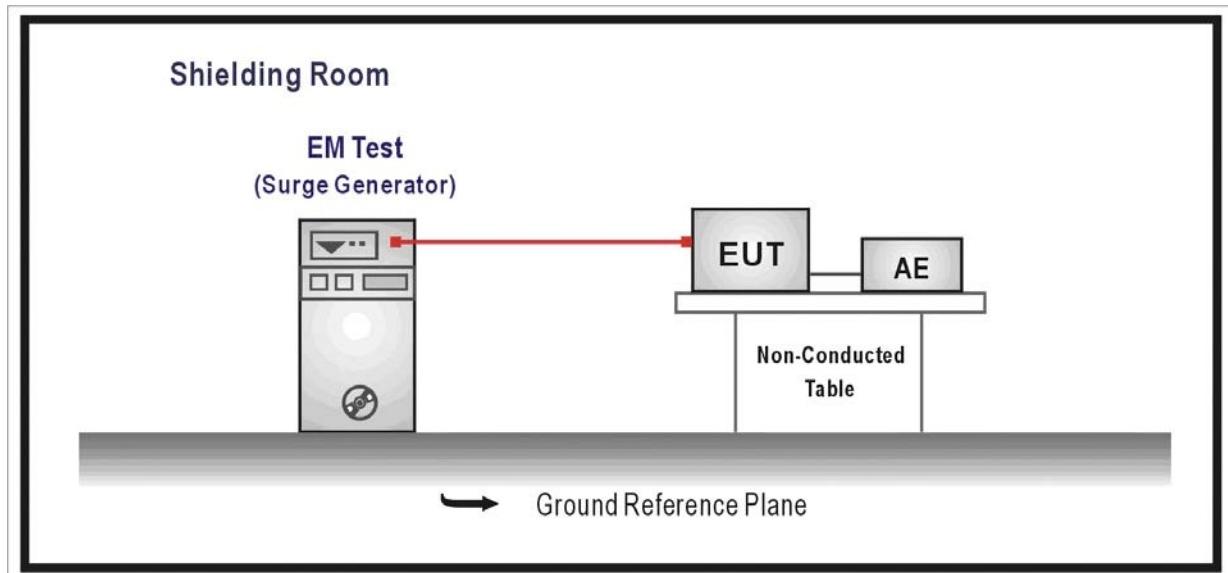


11. Surge

11.1. Test Specification

According to Standard : IEC 61000-4-5

11.2. Test Setup



11.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|---|--|----------------------|-----------------------------|----------------------|
| Signal Ports and Telecommunication Ports(See 1) and 2) | | | | |
| | Surges Line to Ground | Tr/Th us kV | 1.2/50 (8/20) ± 1 | B |
| Input DC Power Ports | | | | |
| | Surges Line to Ground | Tr/Th us kV | 1.2/50 (8/20) ± 0.5 | B |
| AC Input and AC Output Power Ports | | | | |
| | Surges Line to Line Line to Ground | Tr/Th us kV kV | 1.2/50 (8/20) ± 1 ± 2 | B |

Notes:

- 1) Applicable only to ports which according to the manufacturer's may directly to outdoor cables.
- 2) Where normal functioning cannot be achieved because of the impact of the CDN on the EUT, no immunity test shall be required.

11.4. Test Procedure

The EUT and its load are placed on a table that is 0.8 meter above a metal ground plane measured 1m*1m min. and 0.65mm thick min. And projected beyond the EUT by at least 0.1m on all sides. The length of power cord between the coupling device and the EUT shall be 2m or less.

For Input and Output AC Power or DC Input and DC Output Power Ports:

The EUT is connected to the power mains through a coupling device that directly couples the Surge interference signal.

The surge noise shall be applied synchronized to the voltage phase at 0° , 90° , 180° , 270° and the peak value of the a.c. voltage wave. (Positive and negative)

Each of Line-Earth and Line-Line is impressed with a sequence of five surge voltages with interval of 1 min.

11.5. Deviation from Test Standard

No deviation.

11.6. Test Result

| | | | |
|--------------|------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Surge | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/08 | Test Site | No.6 Shielded Room |

| Inject Line | Polarity | Angle | Voltage kV | Time Interval (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|-------|------------|------------------------|---------------|-------------------|----------------------|--------|
| L-N | ± | 0 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 90 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 180 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 270 | 1kV | 60 | Direct | B | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

| | | | | | | | |
|--------------|------------|--|--|-----------|--------------------|--|--|
| Product | Notebook | | | | | | |
| Test Item | Surge | | | | | | |
| Test Mode | Mode 2: | | | | | | |
| Date of Test | 2008/04/08 | | | Test Site | No.6 Shielded Room | | |

| Inject Line | Polarity | Angle | Voltage kV | Time Interval (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|-------|------------|------------------------|---------------|-------------------|----------------------|--------|
| L-N | ± | 0 | 1kV | 60 | Direct | B | B | PASS |
| L-N | ± | 90 | 1kV | 60 | Direct | B | B | PASS |
| L-N | ± | 180 | 1kV | 60 | Direct | B | B | PASS |
| L-N | ± | 270 | 1kV | 60 | Direct | B | B | PASS |
| L-PE | ± | 0 | 2kV | 60 | Direct | B | B | PASS |
| L-PE | ± | 90 | 2kV | 60 | Direct | B | B | PASS |
| L-PE | ± | 180 | 2kV | 60 | Direct | B | B | PASS |
| L-PE | ± | 270 | 2kV | 60 | Direct | B | B | PASS |
| N-PE | ± | 0 | 2kV | 60 | Direct | B | B | PASS |
| N-PE | ± | 90 | 2kV | 60 | Direct | B | B | PASS |
| N-PE | ± | 180 | 2kV | 60 | Direct | B | B | PASS |
| N-PE | ± | 270 | 2kV | 60 | Direct | B | B | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

| | | | | | | | |
|--------------|------------|--|--|-----------|--------------------|--|--|
| Product | Notebook | | | | | | |
| Test Item | Surge | | | | | | |
| Test Mode | Mode 3: | | | | | | |
| Date of Test | 2008/05/01 | | | Test Site | No.6 Shielded Room | | |

| Inject Line | Polarity | Angle | Voltage kV | Time Interval (Second) | Inject Method | Required Criteria | Complied to Criteria | Result |
|-------------|----------|-------|------------|------------------------|---------------|-------------------|----------------------|--------|
| L-N | ± | 0 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 90 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 180 | 1kV | 60 | Direct | B | A | PASS |
| L-N | ± | 270 | 1kV | 60 | Direct | B | A | PASS |
| L-PE | ± | 0 | 2kV | 60 | Direct | B | A | PASS |
| L-PE | ± | 90 | 2kV | 60 | Direct | B | A | PASS |
| L-PE | ± | 180 | 2kV | 60 | Direct | B | A | PASS |
| L-PE | ± | 270 | 2kV | 60 | Direct | B | A | PASS |
| N-PE | ± | 0 | 2kV | 60 | Direct | B | A | PASS |
| N-PE | ± | 90 | 2kV | 60 | Direct | B | A | PASS |
| N-PE | ± | 180 | 2kV | 60 | Direct | B | A | PASS |
| N-PE | ± | 270 | 2kV | 60 | Direct | B | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test.

11.7. Test Photograph

Test Mode : Mode 1:

Description : SURGE Test Setup



Test Mode : Mode 2:

Description : SURGE Test Setup



Test Mode : Mode 3:

Description : SURGE Test Setup



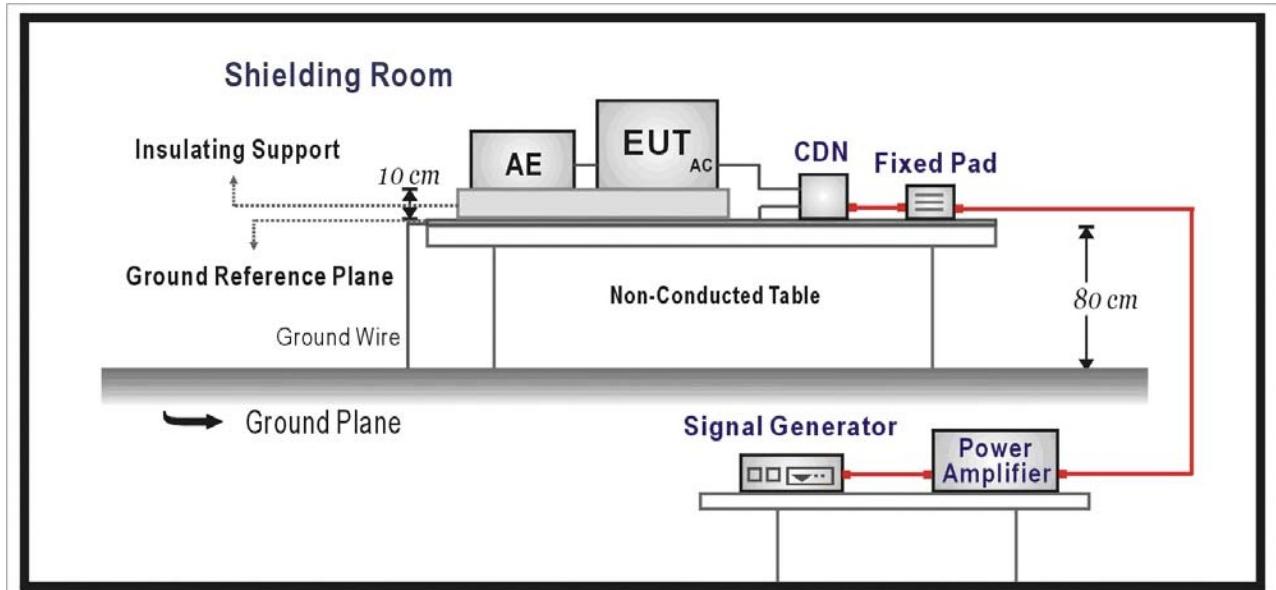
12. Conducted Susceptibility

12.1. Test Specification

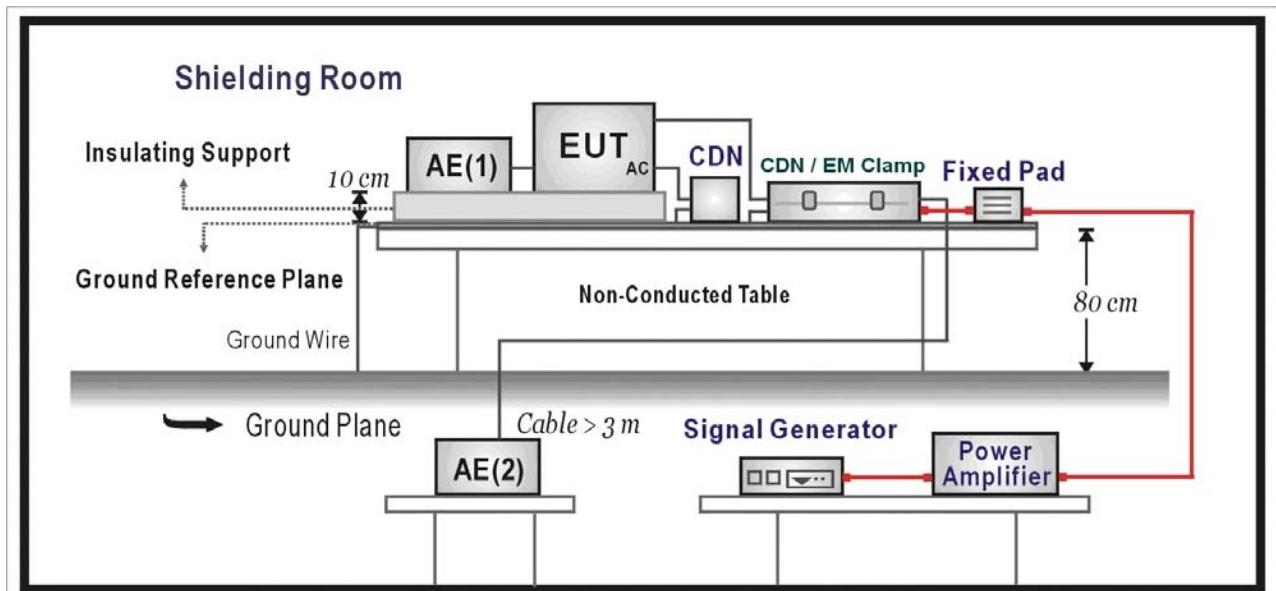
According to Standard : IEC 61000-4-6

12.2. Test Setup

CDN Test Mode



EM Clamp Test Mode



12.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|---|--------------------------------------|--|--------------------|----------------------|
| Signal Ports and Telecommunication Ports | | | | |
| | Radio-Frequency Continuous Conducted | MHz V (rms, Un-modulated) % AM (1kHz) | 0.15-80 3 80 | A |
| Input DC Power Ports | | | | |
| | Radio-Frequency Continuous Conducted | MHz V (rms, Un-modulated) % AM (1kHz) | 0.15-80 3 80 | A |
| Input AC Power Ports | | | | |
| | Radio-Frequency Continuous Conducted | MHz V (rms, Un-modulated) % AM (1kHz) | 0.15-80 3 80 | A |

12.4. Test Procedure

The EUT are placed on a table that is 0.8 meter height, and a Ground reference plane on the table, EUT are placed upon table and use a 10cm insulation between the EUT and Ground reference plane.

For Signal Ports and Telecommunication Ports

The disturbance signal is through a coupling and decoupling networks (CDN) or EM-clamp device couples to the signal and Telecommunication lines of the EUT.

For Input DC and AC Power Ports

The EUT is connected to the power mains through a coupling and decoupling networks for power supply lines. And directly couples the disturbances signal into EUT.

Used CDN-M2 for two wires or CDN-M3 for three wires.

All the scanning conditions are as follows:

| Condition of Test | Remarks |
|-------------------------------------|--------------------------------|
| 1. Field Strength | 130dBuV(3V) Level 2 |
| 2. Radiated Signal | AM 80% Modulated with 1kHz |
| 3. Scanning Frequency | 0.15MHz – 80MHz |
| 4. Dwell Time | 3 Seconds |
| 5. Frequency step size Δf : | 1% |
| 6. The rate of Swept of Frequency | 1.5×10^{-3} decades/s |

12.5. Deviation from Test Standard

No deviation.

12.6. Test Result

| | | | |
|--------------|--------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Conducted susceptibility | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/07 | Test Site | No.6 Shielded Room |

| Frequency Range (MHz) | Voltage Applied dBuV(V) | Inject Method | Tested Port of EUT | Required Criteria | Performance Criteria Complied To | Result |
|-----------------------|-------------------------|---------------|--------------------|-------------------|----------------------------------|--------|
| 0.15~80 | 130 (3V) | CDN | AC IN | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | 100M | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | 1G | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | Telecom | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ dBuV(V) at frequency _____ MHz.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | |
|--------------|--------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Conducted susceptibility | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/07 | Test Site | No.6 Shielded Room |

| Frequency Range (MHz) | Voltage Applied dBuV(V) | Inject Method | Tested Port of EUT | Required Criteria | Performance Criteria Complied To | Result |
|-----------------------|-------------------------|---------------|--------------------|-------------------|----------------------------------|--------|
| 0.15~80 | 130 (3V) | CDN | AC IN | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | 100M | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | 1G | A | A | PASS |
| 0.15~80 | 130 (3V) | CDN | Telecom | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ dBuV(V) at frequency _____ MHz.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | |
|--------------|--------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Conducted susceptibility | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/30 | Test Site | No.6 Shielded Room |

| Frequency Range (MHz) | Voltage Applied dBuV(V) | Inject Method | Tested Port of EUT | Required Criteria | Performance Criteria Complied To | Result |
|-----------------------|-------------------------|---------------|--------------------|-------------------|----------------------------------|--------|
| 0.15~80 | 130 (3V) | CDN | AC IN | A | A | PASS |

Note:

The testing performed is from lowest level up to the highest level as required by standard, but only highest level is shown on the report.

- Meet criteria A : Operate as intended during and after the test
- Meet criteria B : Operate as intended after the test
- Meet criteria C : Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ dBuV(V) at frequency _____ MHz.
 - No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

12.7. Test Photograph

Test Mode : Mode 1:

Description : Conducted Susceptibility Test Setup



Test Mode : Mode 1:

Description : Conducted Susceptibility Test Setup-CDN



Test Mode : Mode 2:

Description : Conducted Susceptibility Test Setup



Test Mode : Mode 2:

Description : Conducted Susceptibility Test Setup-CDN



Test Mode : Mode 3:

Description : Conducted Susceptibility Test Setup



Test Mode : Mode 3:

Description : Conducted Susceptibility Test Setup-CDN

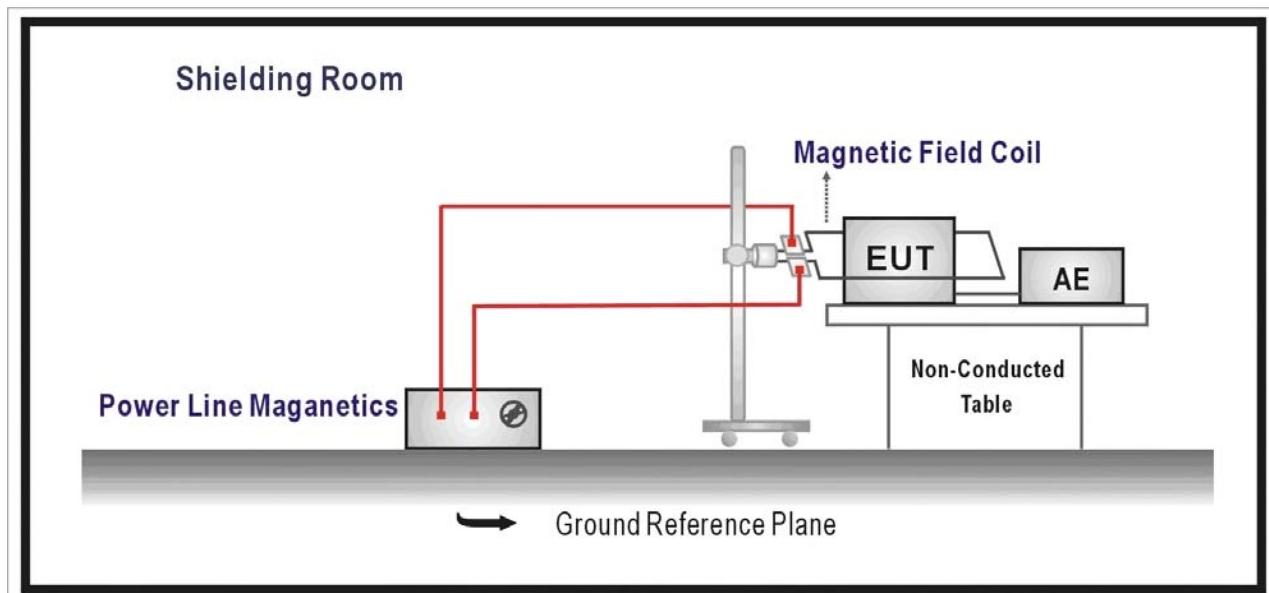


13. Power Frequency Magnetic Field

13.1. Test Specification

According to Standard : IEC 61000-4-8

13.2. Test Setup



13.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|----------------|--------------------------------|--------------------|--------------------|----------------------|
| Enclosure Port | | | | |
| | Power-Frequency Magnetic Field | Hz A/m (r.m.s.) | 50 1 | A |

13.4. Test Procedure

The EUT and its load are placed on a table which is 0.8 meter above a metal ground plane measured at least 1m*1m min. The test magnetic field shall be placed at central of the induction coil.

The test magnetic Field shall be applied 10 minutes by the immersion method to the EUT. And the induction coil shall be rotated by 90° in order to expose the EUT to the test field with different orientation (X, Y, Z Orientations).

13.5. Deviation from Test Standard

No deviation.

13.6. Test Result

| | | | |
|--------------|--------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power frequency magnetic field | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/08 | Test Site | No.3 Shielded Room |

| Polarization | Frequency (Hz) | Magnetic Strength (A/m) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|---------------|-------------------|-------------------------------|-------------------------------------|--|-------------|
| X Orientation | 50 | 1 | A | A | PASS |
| Y Orientation | 50 | 1 | A | A | PASS |
| Z Orientation | 50 | 1 | A | A | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | |
|--------------|--------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power frequency magnetic field | | |
| Test Mode | Mode 2: | | |
| Date of Test | 2008/04/08 | Test Site | No.3 Shielded Room |

| Polarization | Frequency (Hz) | Magnetic Strength (A/m) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|---------------|-------------------|-------------------------------|-------------------------------------|--|-------------|
| X Orientation | 50 | 1 | A | A | PASS |
| Y Orientation | 50 | 1 | A | A | PASS |
| Z Orientation | 50 | 1 | A | A | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | |
|--------------|--------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Power frequency magnetic field | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/28 | Test Site | No.3 Shielded Room |

| Polarization | Frequency (Hz) | Magnetic Strength (A/m) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|---------------|-------------------|-------------------------------|-------------------------------------|--|-------------|
| X Orientation | 50 | 1 | A | A | PASS |
| Y Orientation | 50 | 1 | A | A | PASS |
| Z Orientation | 50 | 1 | A | A | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

13.7. Test Photograph

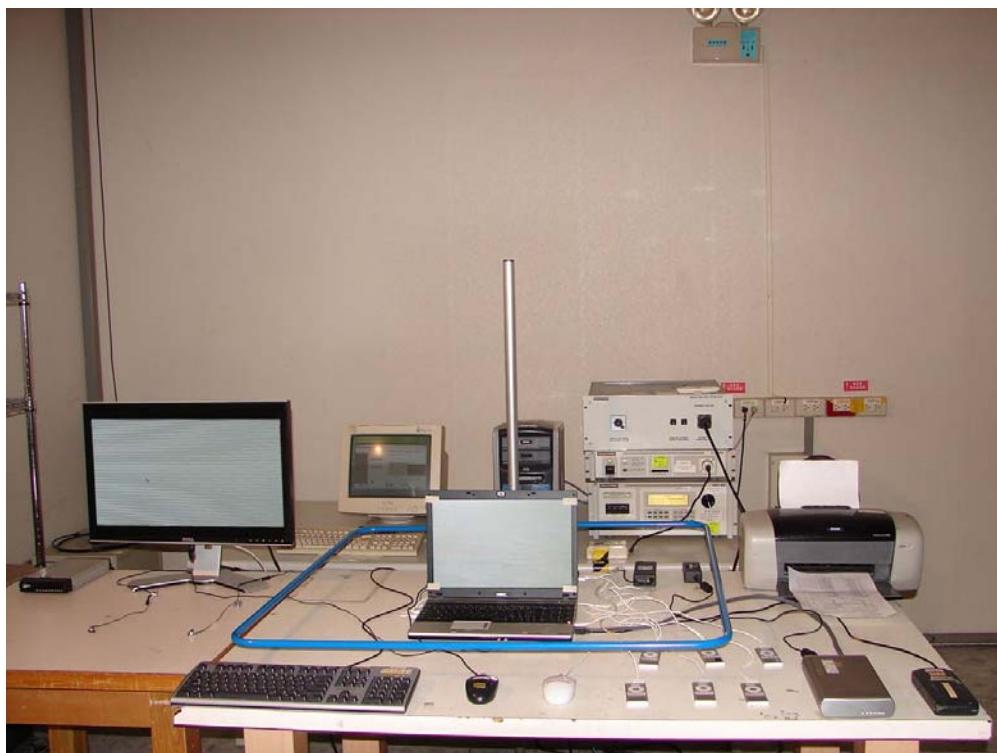
Test Mode : Mode 1:

Description : Power Frequency Magnetic Field Test Setup



Test Mode : Mode 2:

Description : Power Frequency Magnetic Field Test Setup



Test Mode : Mode 3:

Description : Power Frequency Magnetic Field Test Setup

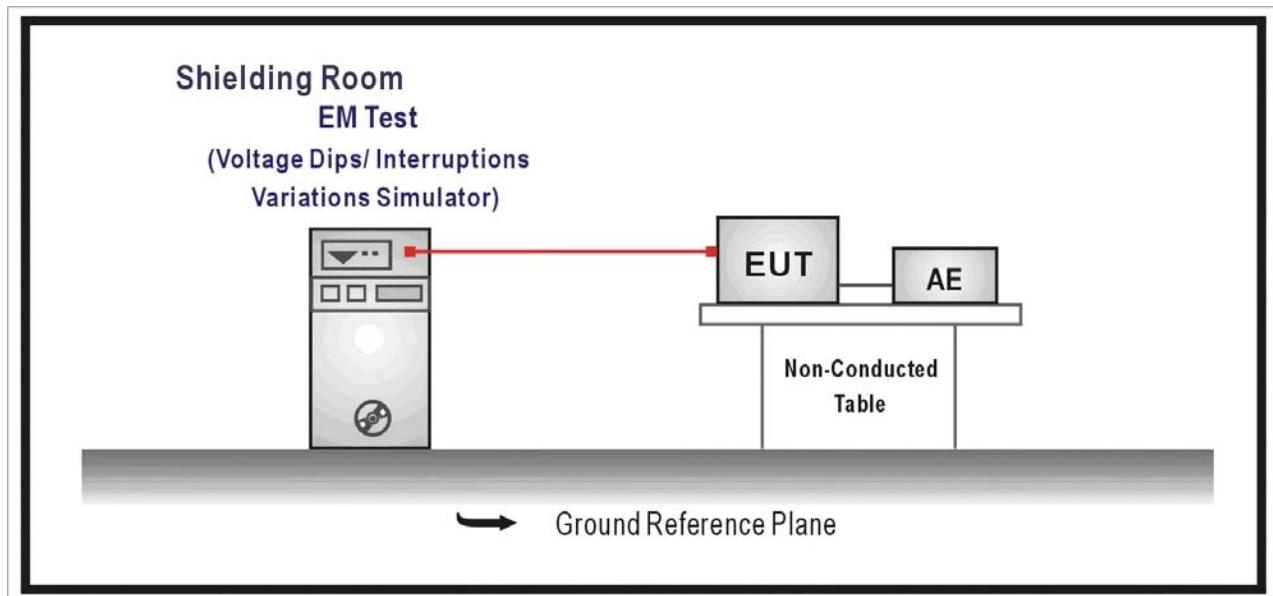


14. Voltage Dips and Interruption

14.1. Test Specification

According to Standard : IEC 61000-4-11

14.2. Test Setup



14.3. Limit

| Item | Environmental Phenomena | Units | Test Specification | Performance Criteria |
|-----------------------|-------------------------|-------------|--------------------|----------------------|
| Input AC Power Ports | | | | |
| Voltage Dips | % Reduction Period | 30 25 | | C |
| | % Reduction Period | >95 0.5 | | B |
| Voltage Interruptions | % Reduction Period | > 95 250 | | C |

14.4. Test Procedure

The EUT and its load are placed on a table which is 0.8 meter above a metal ground plane measured 1m*1m min. And 0.65mm thick min. And projected beyond the EUT by at least 0.1m on all sides. The power cord shall be used the shortest power cord as specified by the manufacturer.

For Voltage Dips/ Interruptions test:

The selection of test voltage is based on the rated power range. If the operation range is large than 20% of lower power range, both end of specified voltage shall be tested.

Otherwise, the typical voltage specification is selected as test voltage.

The EUT is connected to the power mains through a coupling device that directly couples to the Voltage Dips and Interruption Generator.

The EUT shall be tested for 30% voltage dip of supplied voltage and duration 25 Periods, for 95% voltage dip of supplied voltage and duration 0.5 Periods with a sequence of three voltage dips with intervals of 10 seconds, and for 95% voltage interruption of supplied voltage and duration 250 Periods with a sequence of three voltage interruptions with intervals of 10 seconds.

Voltage phase shifting are shall occur at 0° , 45° , 90° , 135° , 180° , 225° , 270° , 315° of the voltage.

14.5. Deviation from Test Standard

No deviation.

14.6. Test Result

| | | | |
|--------------|-------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Voltage dips and interruption | | |
| Test Mode | Mode 1: | | |
| Date of Test | 2008/04/08 | Test Site | No.6 Shielded Room |

| Voltage Dips and Interruption Reduction(%) | Angle | Test Duration (Periods) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|--|-------|-------------------------|-------------------------------|----------------------------------|-------------|
| 30(161V) | 0 | 25 | C | A | PASS |
| 30(161V) | 45 | 25 | C | A | PASS |
| 30(161V) | 90 | 25 | C | A | PASS |
| 30(161V) | 135 | 25 | C | A | PASS |
| 30(161V) | 180 | 25 | C | A | PASS |
| 30(161V) | 225 | 25 | C | A | PASS |
| 30(161V) | 270 | 25 | C | A | PASS |
| 30(161V) | 315 | 25 | C | A | PASS |
| >95(0V) | 0 | 0.5 | B | A | PASS |
| >95(0V) | 45 | 0.5 | B | A | PASS |
| >95(0V) | 90 | 0.5 | B | A | PASS |
| >95(0V) | 135 | 0.5 | B | A | PASS |
| >95(0V) | 180 | 0.5 | B | A | PASS |
| >95(0V) | 225 | 0.5 | B | A | PASS |
| >95(0V) | 270 | 0.5 | B | A | PASS |
| >95(0V) | 315 | 0.5 | B | A | PASS |
| >95(0V) | 0 | 250 | C | B | PASS |
| >95(0V) | 45 | 250 | C | B | PASS |
| >95(0V) | 90 | 250 | C | B | PASS |
| >95(0V) | 135 | 250 | C | B | PASS |
| >95(0V) | 180 | 250 | C | B | PASS |
| >95(0V) | 225 | 250 | C | B | PASS |
| >95(0V) | 270 | 250 | C | B | PASS |
| >95(0V) | 315 | 250 | C | B | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - The nominal voltage of EUT is 230V.
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | | |
|--------------|-------------------------------|-----------|--|--------------------|
| Product | Notebook | | | |
| Test Item | Voltage dips and interruption | | | |
| Test Mode | Mode 2: | | | |
| Date of Test | 2008/04/08 | Test Site | | No.6 Shielded Room |

| Voltage Dips and Interruption Reduction(%) | Angle | Test Duration (Periods) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|--|-------|-------------------------|-------------------------------|----------------------------------|-------------|
| 30(161V) | 0 | 25 | C | A | PASS |
| 30(161V) | 45 | 25 | C | A | PASS |
| 30(161V) | 90 | 25 | C | A | PASS |
| 30(161V) | 135 | 25 | C | A | PASS |
| 30(161V) | 180 | 25 | C | A | PASS |
| 30(161V) | 225 | 25 | C | A | PASS |
| 30(161V) | 270 | 25 | C | A | PASS |
| 30(161V) | 315 | 25 | C | A | PASS |
| >95(0V) | 0 | 0.5 | B | A | PASS |
| >95(0V) | 45 | 0.5 | B | A | PASS |
| >95(0V) | 90 | 0.5 | B | A | PASS |
| >95(0V) | 135 | 0.5 | B | A | PASS |
| >95(0V) | 180 | 0.5 | B | A | PASS |
| >95(0V) | 225 | 0.5 | B | A | PASS |
| >95(0V) | 270 | 0.5 | B | A | PASS |
| >95(0V) | 315 | 0.5 | B | A | PASS |
| >95(0V) | 0 | 250 | C | B | PASS |
| >95(0V) | 45 | 250 | C | B | PASS |
| >95(0V) | 90 | 250 | C | B | PASS |
| >95(0V) | 135 | 250 | C | B | PASS |
| >95(0V) | 180 | 250 | C | B | PASS |
| >95(0V) | 225 | 250 | C | B | PASS |
| >95(0V) | 270 | 250 | C | B | PASS |
| >95(0V) | 315 | 250 | C | B | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - The nominal voltage of EUT is 230V.
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

| | | | |
|--------------|-------------------------------|-----------|--------------------|
| Product | Notebook | | |
| Test Item | Voltage dips and interruption | | |
| Test Mode | Mode 3: | | |
| Date of Test | 2008/04/30 | Test Site | No.6 Shielded Room |

| Voltage Dips and Interruption Reduction(%) | Angle | Test Duration (Periods) | Required Performance Criteria | Performance Criteria Complied To | Test Result |
|--|-------|-------------------------|-------------------------------|----------------------------------|-------------|
| 30(161V) | 0 | 25 | C | A | PASS |
| 30(161V) | 45 | 25 | C | A | PASS |
| 30(161V) | 90 | 25 | C | A | PASS |
| 30(161V) | 135 | 25 | C | A | PASS |
| 30(161V) | 180 | 25 | C | A | PASS |
| 30(161V) | 225 | 25 | C | A | PASS |
| 30(161V) | 270 | 25 | C | A | PASS |
| 30(161V) | 315 | 25 | C | A | PASS |
| >95(0V) | 0 | 0.5 | B | A | PASS |
| >95(0V) | 45 | 0.5 | B | A | PASS |
| >95(0V) | 90 | 0.5 | B | A | PASS |
| >95(0V) | 135 | 0.5 | B | A | PASS |
| >95(0V) | 180 | 0.5 | B | A | PASS |
| >95(0V) | 225 | 0.5 | B | A | PASS |
| >95(0V) | 270 | 0.5 | B | A | PASS |
| >95(0V) | 315 | 0.5 | B | A | PASS |
| >95(0V) | 0 | 250 | C | B | PASS |
| >95(0V) | 45 | 250 | C | B | PASS |
| >95(0V) | 90 | 250 | C | B | PASS |
| >95(0V) | 135 | 250 | C | B | PASS |
| >95(0V) | 180 | 250 | C | B | PASS |
| >95(0V) | 225 | 250 | C | B | PASS |
| >95(0V) | 270 | 250 | C | B | PASS |
| >95(0V) | 315 | 250 | C | B | PASS |

- Meet criteria A: Operate as intended during and after the test
- Meet criteria B: Operate as intended after the test
- Meet criteria C: Loss/Error of function
- Additional Information
 - The nominal voltage of EUT is 230V.
 - EUT stopped operation and could / could not be reset by operator at _____ kV of Line _____.
- No false alarms or other malfunctions were observed during or after the test. The acceptance criteria were met, and the EUT passed the test.

14.7. Test Photograph

Test Mode : Mode 1:

Description : Voltage Dips Test Setup



Test Mode : Mode 2:

Description : Voltage Dips Test Setup



Test Mode : Mode 1:

Description : Voltage Dips Test Setup



15. Attachment**➤ EUT Photograph**

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo



(4) EUT Photo



(5) EUT Photo



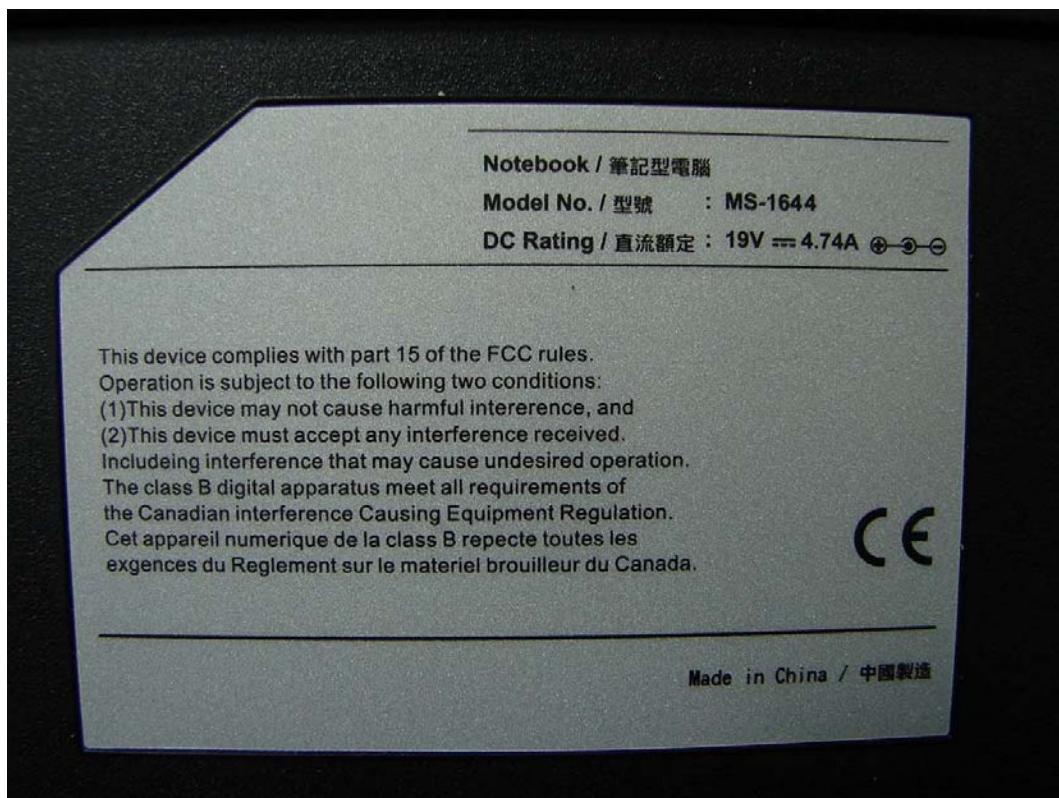
(6) EUT Photo



(7) EUT Photo



(8) EUT Photo



(9) EUT Photo



(10) EUT Photo



(11) EUT Photo



(12) EUT Photo



(13) EUT Photo



(14) EUT Photo



(15) EUT Photo



(16) EUT Photo



(17) EUT Photo



(18) EUT Photo



(19) EUT Photo



(20) EUT Photo



(21) EUT Photo



(22) EUT Photo



(23) EUT Photo



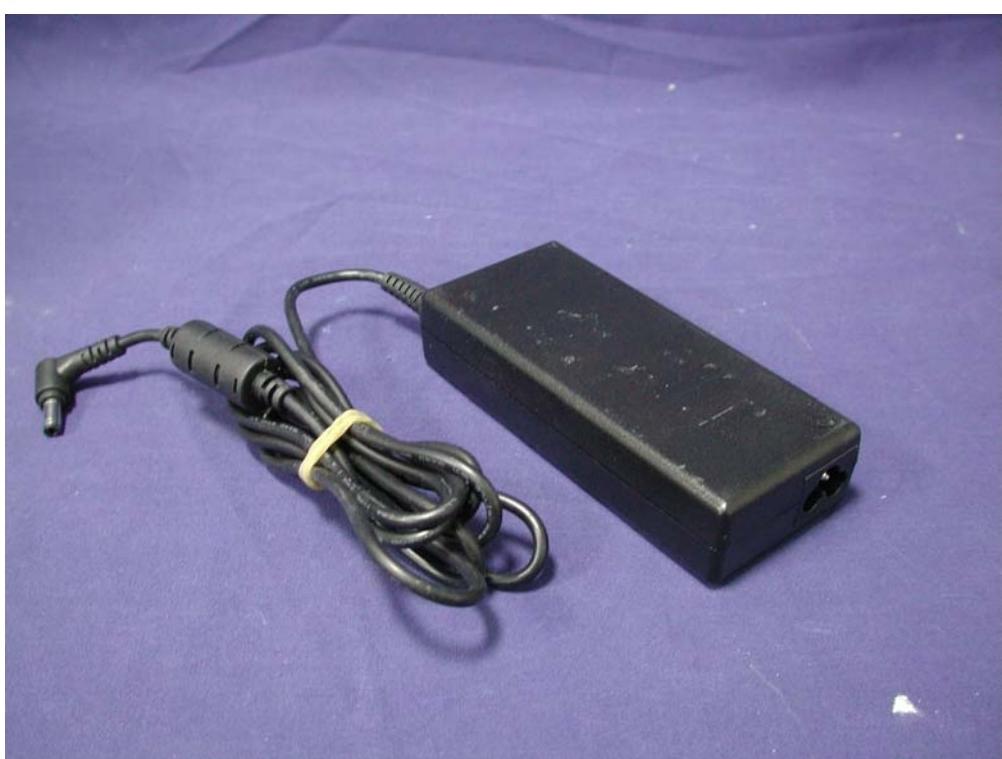
(24) EUT Photo



(25) EUT Photo



(26) EUT Photo



(27) EUT Photo



(28) EUT Photo

